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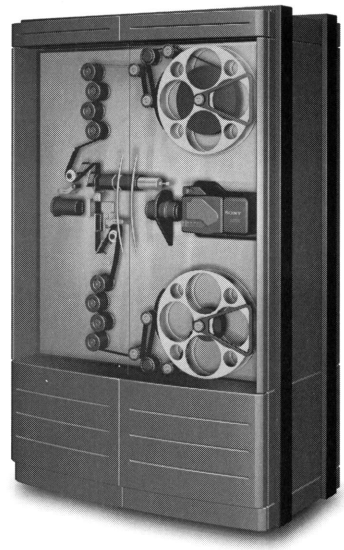

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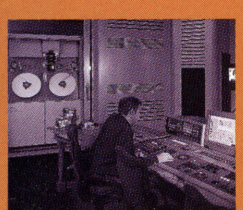

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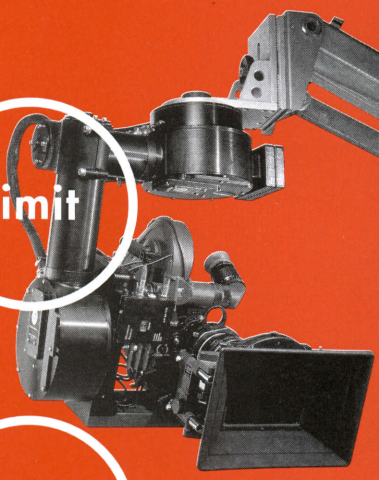

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American Cinematographer

The International Journal of Film & Digital Production Techniques

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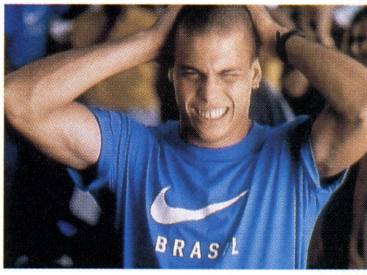

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On Our Cover:
Captain John Miller (Tom Hanks) broods over the daunting task he and his soldiers face in *Saving Private Ryan,* an intense World War II drama directed by Steven Spielberg and photographed by Janusz Kaminski, ASC (photo by David James, courtesy of DreamWorks SKG, Paramount Pictures and Amblin' Entertainment).

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Mary Hardesty
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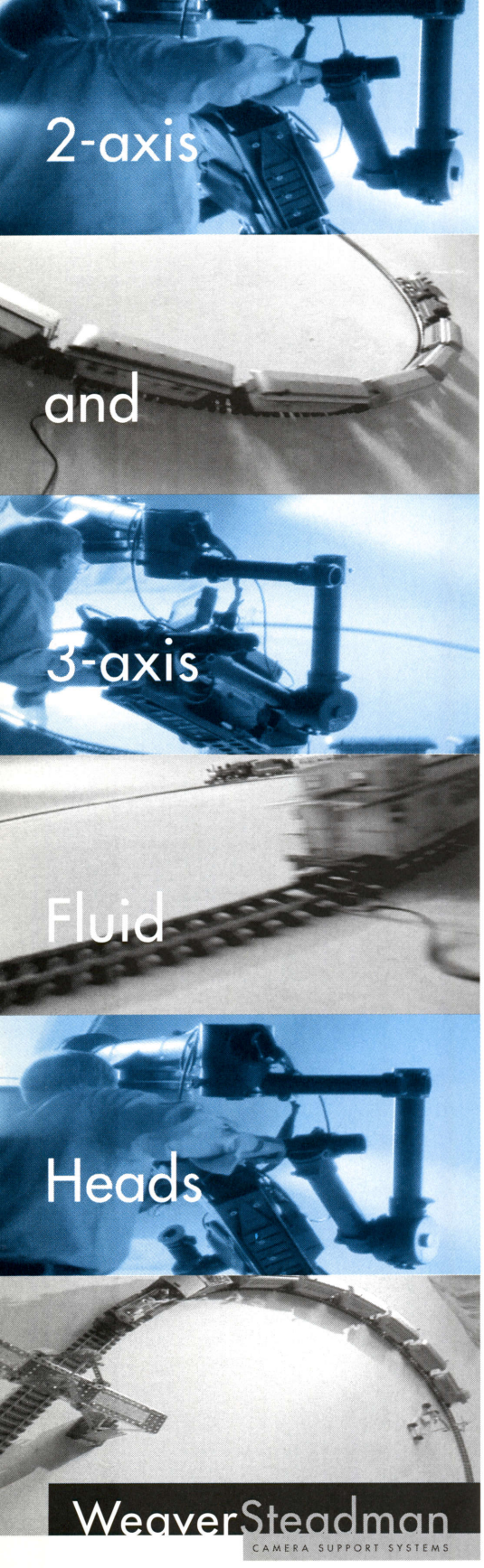

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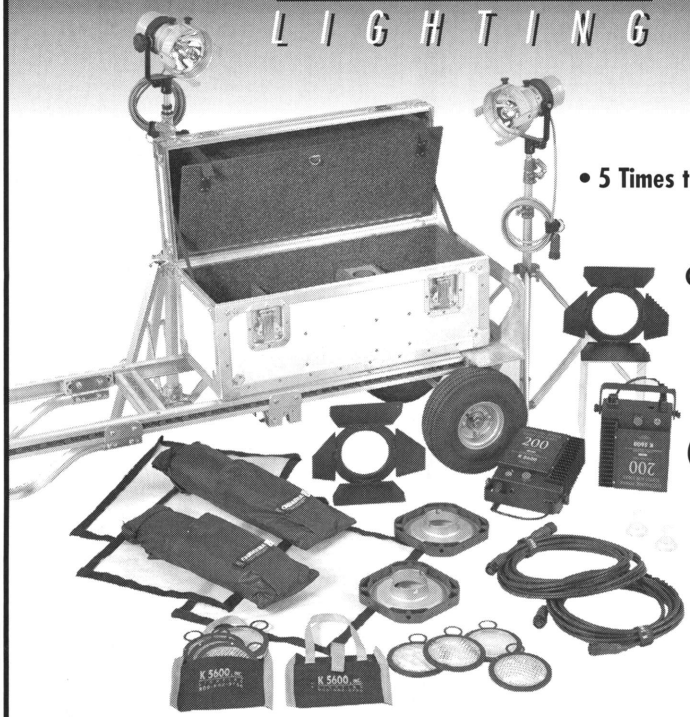

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The ASC is not a labor union or a guild, but is an educational, cultural and professional organization. Membership is by invitation to those who are actively engaged as directors of photography and have demonstrated outstanding ability. ASC membership has become one of the highest honors that can be bestowed upon a professional cinematographer — a mark of prestige and excellence.

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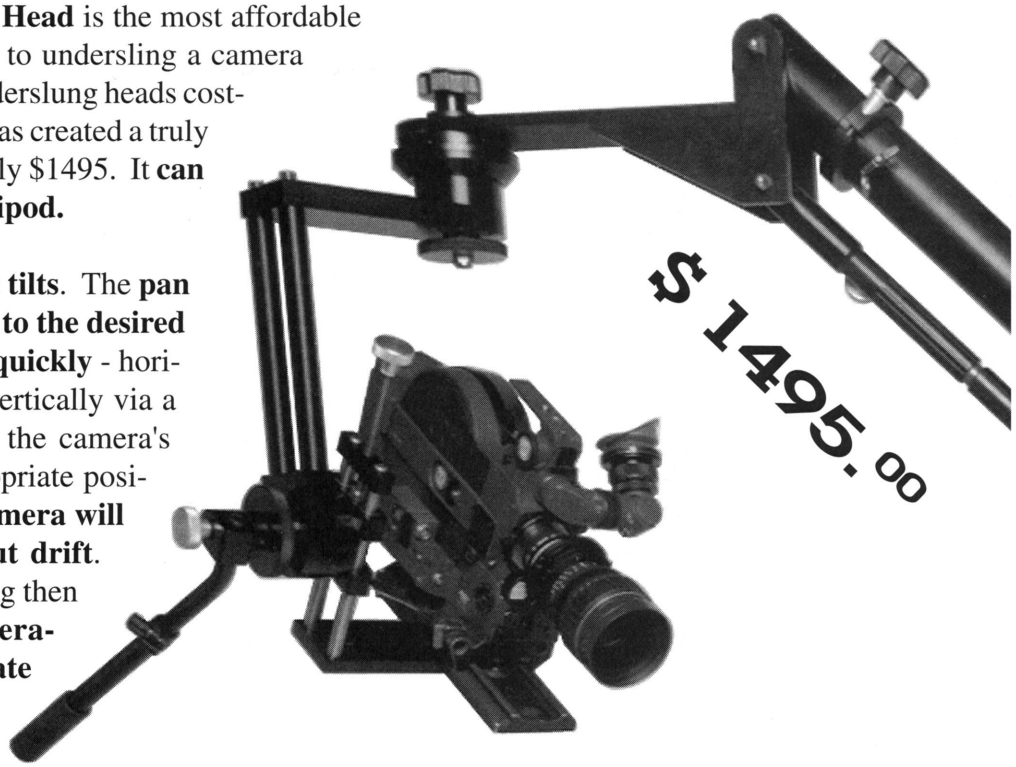

It will achieve **360° pans and tilts**. The **pan and tilt adjust continuously to the desired drag.** The camera **balances quickly** - horizontally via a sliding plate, vertically via a threaded shaft which moves the camera's center of gravity to the appropriate position. **Once balanced, the camera will stop in any position without drift**. Adding a small amount of drag then provides a **very smooth operation**. It also features **separate pan and tilt locks**.

The vertical supports can be extended to provide a 360° tilt range for longer camera packages (with zoom and on-board battery). It will handle camera packages weighing up to 45 lbs.

It comes with a 100mm bowl base, a handle and camera plate. The standard camera plate will fit most video camera shoes and can be replaced by a sliding base plate for film applications.

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Clairmont Strobes: inexpensive, run on 110 volts, easy to use, need no special technician, so *you* control the lighting

Strobe lighting is no longer a mysterious skill. Since 1985, Clairmont Strobes have made it simpler. They work with your production camera — we'll show you how. Lights, camera and backup, all from one familiar source.

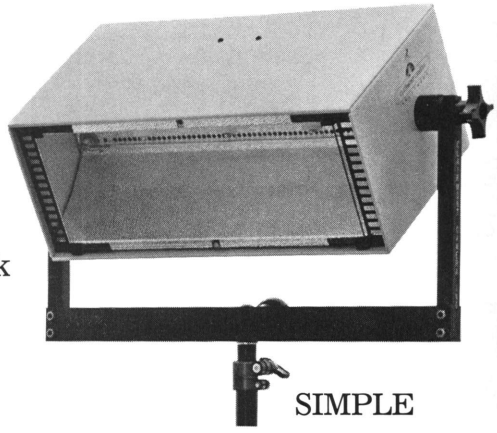
At any speed, strobes have to fire in exact sync with the shutter of the camera you use. It's a good idea to get the lights and the camera from the same place, so they all work smoothly together.

All one package

With our Strobes, the camera can be the one you're renting anyway for the non-strobe footage on that same commercial shoot. You prep the Strobes as part of the regular camera package and Clairmont then stands behind the whole system. If you need to be shown how the Strobes work, we're more than happy to do that — either at the prep or before.

No technician

Camera crews have been handling our Strobes themselves since 1985. There has never been a special technician asking you what T stop you need and then positioning the lampheads. With our Strobes, *you* position the heads, without advice or suggestions.



SIMPLE

Less expensive in three ways

Not hiring a special technician saves money; so does not renting a special ultra-high-speed camera that eats film. Our Strobes also save you money by costing a lot less to rent. A three-head Clairmont Strobe package is about 30% less expensive than the competition.

Tabletop anywhere

Running on 110 volts can be a money-saver, too. On location, you just plug into the wall. (One 15 amp circuit per head.) You don't need to tap (illegally) into the 220 volt feed at the building's main panel. Location interiors are generally cheaper than sets built on 220 volt soundstages. And you can shoot tabletop footage wherever there's room for a table.

Easy closeups

Tabletop is where strobe light really shines. Each of our heads is 17 inches long and only 7 inches wide, so it's easy to move several heads in very close for small subjects. And you can *shape* the light by positioning the lampheads horizontally or vertically.

Four times lighter

The rectangular shape also makes it easy to gang them. Each head puts out 100 foot-candles at 4 feet. Gaffertape four of them together and you have a 400 foot-candle source measuring 34 x 14 inches (or 28 x 17 inches) and weighing 40 pounds. That's the weight of *one* of the competition's heads.

Using gaffertape is no problem because strobes run cool. That also makes it easier to tape gels. Color temperature is 7000°K.

Cool running helps with tabletop food

Another benefit of cool running is that ice cream won't melt as quickly and lettuce doesn't wilt. The condensation on refrigerated beer bottles stays there longer. Steam is much easier to control.

Preview the lighting

To light the steam rising from the soup, you use the Preview Box and the Sync Box to run all the heads at 61 frames per second *without* running the camera. At that speed, strobe flashes look almost like regular AC light. You can look through the camera and position the heads for the effect you want.

The Preview Box also lets you switch each individual head on and off while the Strobe system is running but the camera isn't. And there's a Low Power switch on each Powerpack that gives you one stop less. Both the Preview Box and the Sync Box are cigarette-pack size, easy to hand-hold and adjust while you're looking through the camera.

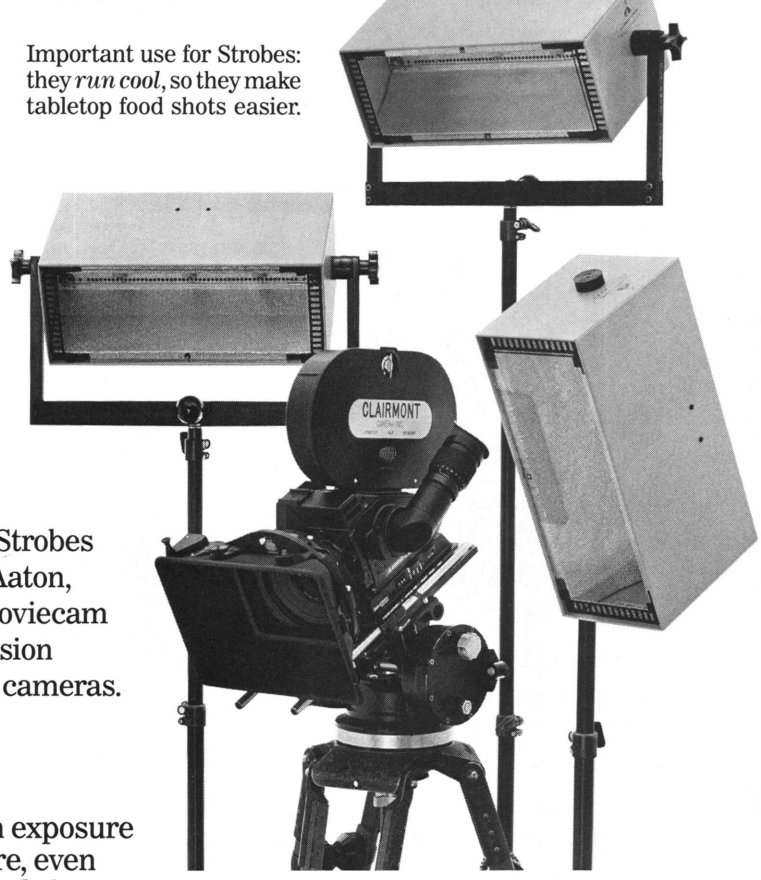
Multiple heads, multiple cameras

The Sync Box automatically relays sync signals from the camera. It has settings for flash rate (marked in frames), film-and-eyepiece or film-only, 35mm or 16mm. You can run multiple heads from one camera or use multiple cameras and multiple heads, all in sync.

Helpful Powerpack

Each Strobe head has a separate Powerpack that draws 10 to 13 amps (at 110 volts), depending on flash rate. It weighs 46 pounds and is shaped like a suitcase (6 inches wide) with a carrying handle on top. It has a red light and a beeper to warn you if you don't have a proper ground. There's also a ground lug and a wire that you can connect to a water pipe. A yellow light and a different beeper warn you if the voltage is too low.

Important use for Strobes: they *run cool*, so they make tabletop food shots easier.



Clairmont Strobes work with Aaton, Arriflex, Moviecam and Panavision production cameras.

No change in exposure or aperture, even if camera speed changes during the shot

Whatever your camera speed, a strobe flash fires in far less time than the shutter is open; so it's the flash and the T stop that set exposure. If you're using T5.6 at 24 fps, T5.6 will also be correct at any other speed, provided the flash recycle time is fast enough. With our Strobes, it *is* fast enough. You can even set the T stop and then change from, say, 5 fps to 150 fps during the shot and there will be no change in exposure.

Strobe and speed: not the same thing

Two ways to make detail clearer: slow things down (expand the detail) or sharpen things up. A sharp image of movement requires a short exposure; our Strobe's pulse flash lasts 1/50,000 second. Obviously, high camera speed isn't needed to clarify detail. You can combine *strobe and speed, of course – ours goes up to 150 fps.*

Energy and screen time

Here's what the veteran tabletop Director/Cameraman Ralph Chandler says: "Strobe light makes liquids come alive. You can really see what's going on, in sharp detail. And with strobe light, you don't need to use ultra high speed to get that effect," says Mr. Chandler, "So you can show more in the same screen time and the action keeps its energy."

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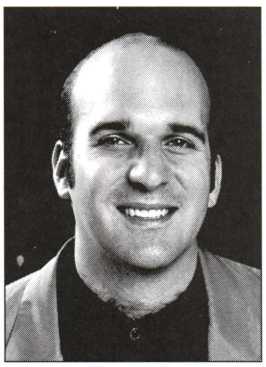
Editor's Note



Every so often, a special motion picture arrives to renew one's faith in the medium. The release of *Saving Private Ryan* is just such an event. A staggering achievement both technically and artistically, Steven Spielberg's latest film certainly ranks as one of the truly great war movies produced by Hollywood.

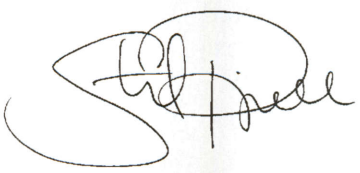
Perhaps the most admirable aspect of this very cinematic tale is that despite the abundance of action sequences, the script never strays far from its human elements. In detailing the combat horrors endured by its characters, *Private Ryan* does for the Second World War what 1930's *All Quiet on the Western Front* did for the First, illustrating the senseless savagery of battle in very personal terms; because viewers come to both know and respect the soldiers portrayed in the story, their eventual fate is both harrowing and unforgettable. Warfare has rarely been rendered so realistically onscreen, and a good deal of credit must be given to director of photography Janusz Kaminski, ASC, who surpasses himself on this picture. *Private Ryan* is filled with images that linger in the memory long after one leaves the theater — some terrible, others touching. Our coverage of this momentous production begins on page 30.

If stylized thrills are more to your liking, *Snake Eyes* (page 52) will certainly fill the bill. Director Brian DePalma and cinematographer Stephen Burum, ASC always conjure up ingenious ways to entertain an audience, and their latest collaboration offers enough twists and turns to keep even the shrewdest viewer guessing. (Hint: The killer is *not* Colonel Mustard.)

This issue of *AC* also offers a special focus on commercials and music videos, which have long served as testing grounds for daring and experimental photographic techniques. Several top-notch directors and cinematographers analyze their inspirations and working methods for us, revealing in the process that short-form work can still be groundbreaking. First up are Floria Sigismondi and cameraman Chris Soos, who dissect the hip, ghoulish hallucinations they've brought to music television (page 60). Equally adventurous is the work of Gerald Casale, co-founder of the avant-garde rock band Devo, who continues to invade suburbia with thought-provoking imagery (page 72). Finally, it's off to soccer-mad South America, where premier action director John Woo partnered with cinematographer Gale Tattersall to shoot a lively Nike spot that shows off the skills of Brazil's outstanding World Cup team (page 82).

Last but not least is our historical overview of *The Exorcist,* which has just marked its 25th anniversary. A recent screening at Mann's Chinese Theater in Hollywood proved that the 1973 horror classic can still cause viewers to cower and cringe — a testament to the visual abilities of director William Friedkin and cinematographer Owen Roizman, ASC, who imbued their frightfest with an eerie atmosphere of intense realism. Hopefully, the power of Fathers Merrin and Karras will compel you to read associate editor David Williams' detailed coverage, which begins on page 88.

Sincerely,



Stephen Pizzello, Executive Editor
e-mail: stephen_pizzello@cinematographer.com

ON FILM

Amy Vincent

"The great cameramen I've worked with taught me you can never stop learning, because every film presents a different challenge. You have to be daring and willing to deviate from your plan when you see an opportunity that you feel is right. The art comes from the different ways each of us tells the same story. Maybe you decide to overexpose the film, or put the camera in an unexpected place, or you make a subtle change in the color temperature of light. When someone gives me a story that touches me and I can make a contribution, cinematography is a pure joy."

Eve's Bayou was shot and printed on Kodak motion picture film.

Amy Vincent's narrative credits include *Eve's Bayou*, *Way Past Cool*, *Some Girls*, and *Jawbreaker*. She received top honors in the 1997 and 1998 International Photographers Guild Short Film Showcase for *Tuesday Morning Ride* and *Dr. Hugo*.

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Digital Perspectives

Internet Media — The Next Generation

by Frank Beacham

Internet media is on an extraordinarily fast track. Sound and picture quality is rapidly improving, while the user base is expanding more quickly than any other media form on the planet.

Now, just three years after the invention of real-time audio delivery over the Internet, a new breed of web media is poised for launch. This time out, the palette broadens with the possibility of content creators choreographing sound, video, still images, text and animation into a single synchronous presentation.

RealNetworks, the Seattle-based company which invented what's now called "streaming media," recently announced RealSystem G2, a next-generation delivery technology that substantially boosts the multimedia capabilities of online media, bringing it much closer to broadcast quality. Microsoft is soon expected to offer significant improvements to its NetShow technology, while Apple recently demonstrated live television broadcasting with its QuickTime technology. The cumulative effect is expected to be a giant leap forward in the technical quality of *all* Internet media.

RealSystem G2 boosts audio quality over 28.8 modems by more than 80 percent, and substantially improves video quality over conventional dial-up phone lines. Also promised is a dramatic reduction in the annoying glitches and dropouts in sound and pictures that have long plagued computer users trying to access real-time sound and pictures over standard Internet hookups.

RealNetworks is by far the most popular streaming media technology, with about 85 percent of all Internet users. However, Microsoft is expected to mount a strong challenge by this fall with the release of NetShow 3.0. While RealNetworks charges for its most advanced server technology, Microsoft includes NetShow at no extra cost to purchasers of its Windows NT server software. Apple's cross-platform QuickTime 3.0 is a newcomer to the streaming media landscape, and it is still too early to tell whether QuickTime will become a serious competitor to RealNetworks and Microsoft.

Users of NetShow 3.0 can play content with the new Microsoft Media Player, a universal device that plays most local and streamed media file types. These include AVI, MPEG, QuickTime, and older versions of RealAudio and RealVideo content. Unfortunately, Microsoft has not licensed the latest RealNetwork technology.

The new release features NetShow Theater Server, a scalable, fault-tolerant video server for the delivery of broadcast-quality, MPEG 1 and MPEG 2 video on high-speed networks. It provides 30 frame per second, "entertainment-quality" video services and supports data rates ranging from 500 Kbps to 8 Mbps.

The looming battle between RealNetworks and Microsoft comes at a time of dramatic growth in web-delivered media. Over a five-month period ending in April, RealNetworks reported a 98 percent increase in the number of websites offering streaming media content. Each week, a staggering 150,000 hours of live content using RealAudio and RealVideo is now being produced.

The company also noted that during the same five-month period, more than 15 million free players for its streaming media were downloaded

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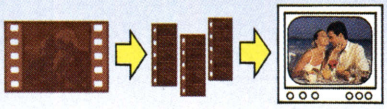

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from the RealNetworks' web site (www.real.com). Currently, more than 100,000 players are being downloaded each day.

Right now, some 30-plus television stations employ RealVideo for live Internet program feeds, but audio continues to be the most popular use of streaming media technology. Though video delivery has gotten the most press attention, pictures delivered over low-bandwidth Internet connections remain jerky, fuzzy and difficult to watch.

Internet users are not as adventurous as was first expected. Program creators have far more powerful storytelling options at their disposal, but it's still uncertain as to whether they will choose to explore new media forms or keep with the tried and true. Even RealNetwork's chairman Rob Glaser, the visionary who pioneered streaming audio, admits the error in his initial prediction that users of the technology would prefer short audio clips integrated with text and photographs.

Steve Church, president of Telos Systems, the company behind AudioActive, a NetShow-compatible streaming technology, believes that basic spoken-word audio (without pictures) will win out in the end. "Communication with the voice is fundamental to the way human beings relate to one another," he says. "Whether words are spoken around a campfire or over the Internet, I don't think this form of communication will ever change."

A preview release of RealNetworks G2 is available for download at http://www.real.com. The public beta releases of NetShow 3.0, the Microsoft Media Player and NetShow Theater Server are available for free download at http://microsoft.com/ntserver/netshow/. Apple's QuickTime 3.0 is available at http://www.apple.com/quicktime/. ■

Frank Beacham is a New York City-based writer and producer. Visit his website at: http://www.beacham.com. Mail: 163 Amsterdam Ave. #361, New York, NY 10023. E-mail: frank@beacham.com.

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Production Slate

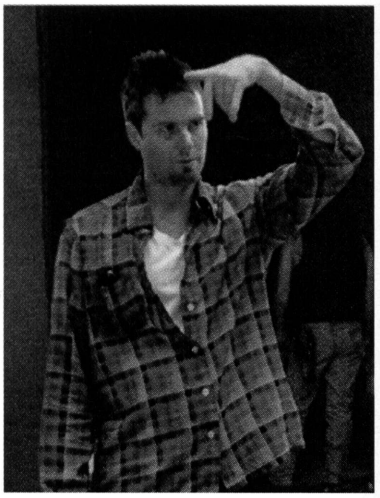
compiled by Andrew O. Thompson

Tooling an Award-Winning "Aenema"
by Andrew O. Thompson

Director of photography James Hawkinson earned kudos for his imagery on the Tool video "Aenema" at the Music Video Production Association's seventh annual awards ceremony, held on April 1 at the Los Angeles headquarters of the Directors Guild of America. Also earning nominations in the Best Cinematography category were cameramen Simon Chaudoir (Portishead's "Only You"), Henrik Halverson (Prodigy's "Smack My Bitch Up"), Jeff Cutter (Wyclef Jean's "Gone Till November") and Harris Savides (Fiona Apple's "Criminal"). "Aenema" also walked off with Rock Video of the Year honors for its production company, Third Eye Films.

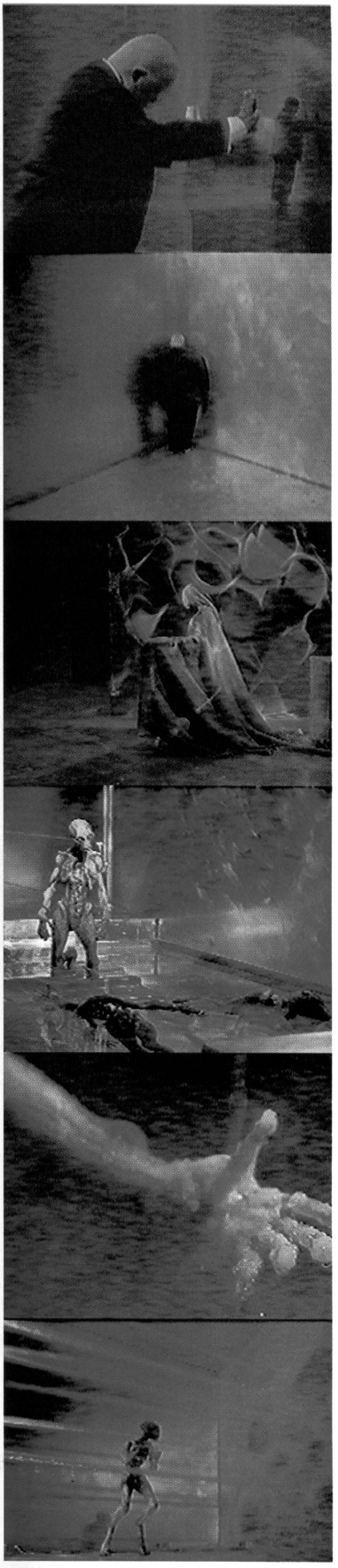
A native of Los Angeles, Hawkinson first became enamored with film at age six while experiencing *2001: A Space Odyssey* at the Cinerama Dome theater in Hollywood. He initially aspired to be a film composer, and studied piano in high school. While attending Orange Coast Junior College, Hawkinson began taking cinema classes to make movies that he could score. The filmmaking process, however, soon became an addiction. "The pursuit of visual poetry is that of an exotic mistress," he says. "Cinema is like music in that in has mood and a temporal movement, over which you then add characters and plot."

After earning a film degree from Pasadena's Art Center College of Design in 1987, Hawkinson spent the next decade paying his dues as a crew electrician. For three years, he worked as a freelance gaffer at the now defunct effects house Boss Film Studios (apprenticing under ASC members Richard Edlund and David Stewart) and contributed to the feature films *Air Force One* and *Turbulence*. Hawkinson also served as a second-unit cinematographer on the biopic *Selena* (shot by Ed Lachman, ASC). In addition to photographing Tool's previous video, the Grammy Award-nominated clip for "Stinkfist," he has contributed imagery to clips for the artists Filter ("Jurassitol"),



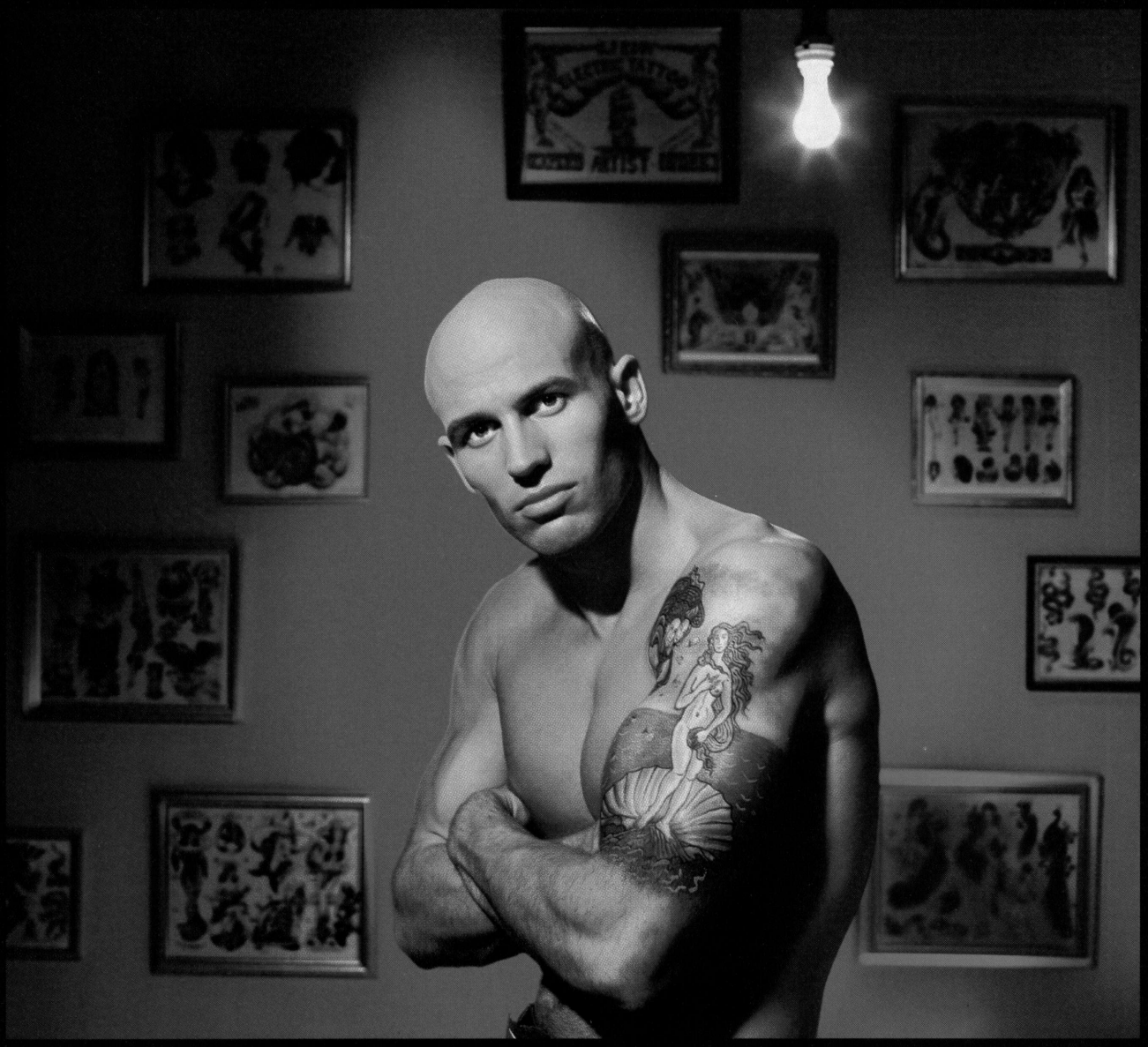
Missy Elliot ("Sock It to Me"), Rachid ("Pride"), and Scootermack ("Been So Long"), among numerous others.

Boasting an eerie, eccentric concept, the "Aenema" video opens on a crystal ball before the shot streams through a computer-generated field of sticks situated in a black backdrop. It then cuts to a barren, blue-hued room where a hulking, smooth-scalped figure in a black suit struts across to the far wall. The bald behemoth appears in the next frame carrying a bundle fastened with rope. After the cords are cut, the package rises to reveal a tiny extraterrestrial figure. Trapped in a metallic room which is slowly inundated with water, the alien dwarf is subjected to laboratory-like tests. The bald figure in the



Images courtesy of Third Eye Films.

Center: Director of photography James Hawkinson. Far right: A series of actual frames from "Aenema," which was directed by Tool guitarist Adam Jones. The spot combines live-action photography with meticulously crafted character animation.



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black suit is then seen tossing a metallic, rectangular box across the room — a steel carton containing the hapless creature. From this point, the surreal video serves up a series of quick-cutting images: cells in mitosis; billowing clouds erupting in a tank of water; an embryo ensconced in amniotic fluid; a slithering two-headed lizard; the alien poking its own eye; and other strange spectacles.

Tool is something of an anomaly within the music video realm, in that the band's clips are produced with hands-on involvement from the musicians themselves. In fact, Adam Jones, the industrial rock band's guitarist/songwriter, directs all of their videos and is a seasoned animator in his own right. (Though Fred Stir directed the Tool videos "Prison Sex" and "Sober," the look of the clips was designed by Jones.)

While struggling to secure a record deal for Tool, Jones did freelance effects work. Hawkinson was brought in to shoot Tool's videos by Jones's producer, Donna Langston, who knew the cinematographer from her own prior association with Boss Films. After meeting the guitarist, Hawkinson was blindsided by Jones's bizarre aesthetic, which was inspired in part by the sordid stop-motion antics of the renowned animating team known as The Brothers Quay. "I went to Adam's house in Burbank, and standing in his living room was a full-sized sculpture of man wearing a blue suit and a tie: he had jaws jutting out of his mouth and an eye in the center of his forehead. It was pretty cool, but I was thinking to myself, 'Oh my God, who is this guy?' Then I saw his sketches, and I knew that I would have to do the video."

The director executes his "storyboards" in a manner inspired by his animation training. He first plasters a 4' x 4' piece of foamcore with about 30 or 40 post-it notes, each an ink sketch of specific setpieces. Production is then done in a piecemeal fashion, with the filmmakers working through the video one post-it at a time until the piece is complete. Hawkinson comments, "Adam's sketches come from his own place; he's not taking things out of fashion magazines or looking at H.R. Giger. He's a really fastidious and devoted artist — he works nonstop." After perusing the post-it notes for "Aenema," the duo took field trips to an aquarium store to gather ideas for the clip's aquatic imagery and rich aquamarine tint. "We'd just watch all of the different textures [of moving water] and study the bubbles, and we specifically studied the way the water moved when it shot off the walls — all of that visual white noise can be so hypnotizing."

Since both Jones and Hawkinson hail from a musical background, they are able to communicate in a subconscious shorthand of sorts during a video's conceptual stage. The cameraman explains, "He can give me very abstract notes which I can translate into something tangible and coherent."

Hawkinson had initially hoped to shoot "Aenema" on reversal stock because of the emulsion's limited latitude. However, Jones had no desire to work with reversal tones. "Generally speaking, I go more for monochromes or subdued color palettes, whether they are cooler tones or just desaturated," the cameraman says. "In film school, my art films were always in black-and-white or on cheap color negative with heavy filtration that I'd later manipulate in telecine to whatever [shade] I wanted."

To lend "Aenema" its turquoise tint, Hawkinson photographed the clip with Kodak's Vision 500T 5279 on silver-colored sets. He biased his negative toward blue hues by employing daylight HMI fixtures and forsaking a color-correcting 85 filter. The video is marked throughout with cascading patterns of prismed light dancing along the walls, and these HMI sources proved adept at producing an in-camera flicker effect: most of the lights were in the 4K range, but in lieu of those Hawkinson sometimes deployed 1200W Pars pushed through diffusion.

As a result of the cameraman's admitted love of "gears, sprockets and the physicality of the Machine Age," Hawkinson decided to take the old-school approach of shooting the Tool video solely with Mitchell cameras — a "Panavised" Mark II was his A-camera,

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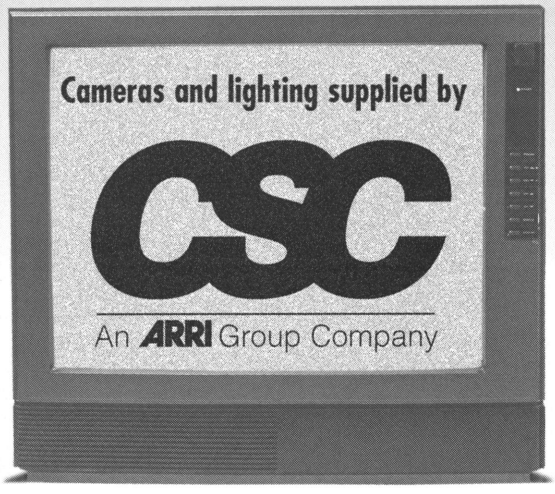

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while a 1937 Mitchell rack-over (actually used at RKO Studios during the Forties and Fifties) served as B-camera. His main reason for using Mitchells was that the cameras' pin-registration provides greater accuracy when one fires off sequences one frame at a time, as the filmmakers did while shooting the animated puppetry of "Aenema."

The production's 2 1/2 days of live-action shooting involved capturing scenes of actress Pata moving through a sparse blue space, touching the walls and wading in a shallow pool. Another afternoon was spent shooting "textural, cold tank work — single-frame work of those signature Tool shots that look somewhat pixillated. One such "gag" is a stream of rapidly frothing water lined with silver streaks, which in actuality are tiny fish shot at varying exposures in a small set cocked to one side. "In doing the gag with the fish," Hawkinson explains, "I wanted a long exposure, but I didn't go over four seconds. A four-second print exposure turned the water into a frosty sheet that the fish would just streak through. I did do tests to determine how long of an exposure I'd need to create a certain streak in the water: on the faster one, we could see [the fish], but in the longer exposure, the water was smoother and frostier. It's another subliminal kinetic thing that gets into your subconscious on a second and third read."

To shoot the miniature alien trapped inside the tumbling metallic box, a set was built within a steel trashcan and frontlit with Dedolights; the camera (set at 120fps) was then welded to the garbage can, which was kicked across an empty parking lot.

Aside from the live-action and insert photography, the remainder of video consists of in-camera, motion-control animation, a painstaking process which required a three-week production period. "It could've been done quicker, but we didn't want to rush the animation," the cameraman offers. "Adam knows his stuff, like double-exposing every third frame to get a certain motion blur. He gets very Zen about the process: he puts on ambient music [Lustmord's "Where the Dark Stars Hang"] and creates a vibe that's on the downlow. And he's a night owl. I would come in at six to program shots, light the set and consult with the grip, who was working the nets on the key light. But it might not be until midnight that Adam starts animating, because he likes to fuss with the setup — it's very mannered and calculated work." After week two, Jones had become somewhat swamped with the character animation, so he called in the Higa Brothers — twin Japanese animators — along with Kevin Willis to assist him in the completion of "Aenema."

"Programming the moves and making everything aesthetically pleasing is the trickiest part," adds Hawkinson. "On some shots, you might want to dolly in for 23 frames, hold for 60, then dolly right for 240, boom up and so on. But in watching it, you realize that part of the move has to be readjusted to 72 frames, so precisely designing the motion-control curves becomes a mathematical and philosophical equation of sorts.

"Then, of course, you must adjust all your lights: it might look fantastic at one part of the move, but you've got to fix it when it gets to the other part. So much of lighting is taking light away."

All of the pulsating bursts used during the animated sequences were generated with 100W Dedolights cranked up to 3400° Kelvin. (On-set flicker effects were attained with HMIs.) The bulbs' blinking pattern was manually achieved by "a grip holding a double net [in front of the Dedo] for two frames and a single net for another two frames, then letting it go for two frames and holding in a single net for the next two frames. It was tedious work, considering that there might be 20 seconds or a minute between the frames."

Hawkinson recently completed shooting on *Zoetrope*, a black-and-white indie sci-fi short which features a generous number of matte-composited special effects. Though the MVPA award has earned the cameraman the respect of his peers, he's still going to be somewhat selective about the types of projects he shoots. "I'd rather have a handful of great directors that I feel comfortable collaborating with, instead of shooting for 100 different ones every year," says Hawkinson. "There's this up-and-coming generation [of music video directors] in their mid-twenties who are referencing directors I've been into for years, such as Tarkovsky and Antonioni, and that excites me. I'm more of an art-house type of guy — I'd shoot for Lars Von Trier [*The Kingdom, Breaking the Waves*] for 'no money.'"

Are you listening, Lars?

The 12-year-old MVPA is a non-profit trade organization representing music video production companies. Its purpose is to promote and uphold the highest professional production standards, to provide an arena to share ideas and mutual concerns, and to educate its members about the latest developments in the music video industry. For more information call (818) 989-7370, fax (818) 989-7483 or hit the MVPA's website at www.mvpa.com.

A high-flying clip from the Merrill Lynch spot "Gary," directed and photographed by Bob Carmichael in Arizona's Monument Valley, which served as a location for many John Ford Westerns.

Merrill Lynch Scales Monument Heights

by Bob Carmichael

As a director/cameraman on the 30-second Merrill Lynch spot "Gary," I was charged with shooting in a spectacular, remote location while undertaking a logistically and physically challenging mountain-climbing shoot. I actually got my start in this business by shooting climbing/adventure films; in those days, climbing photography meant capturing 16mm handheld photography while hanging on a rope. But thanks to progressive Colorado riggers like Mike Weiss and Earl Wiggins, we're not suspending ourselves from ropes anymore.

The storyboards on this project called for a full repertoire of extreme and authentic climbing maneuvers. Given the time crunch and a schedule that fell in mid-February, we opted for Monument Valley, Arizona. With its rich history of John Ford Westerns and 500' sandstone spires, I knew we could get the kind of depth and dramatic backdrops which were desired by the Bozell agency worldwide producer, Carol Roughhedge, and had been promised by Richard Epstein, the executive producer from the production company, Film Realite.

On a heavily helicopter-dependent job such as this, I always want to fly with a very experienced, mountain-savvy pilot with a conservative demeanor who has logged many hours in the air. Dan

Photos and images courtesy of Bob Carmichael.

Actor Bob Williams, an experienced climber, executed all of his own work on the "Gary" spot. The ad's color timing was done by Rob Lingelbach at postproduction house POP in Santa Monica, California.

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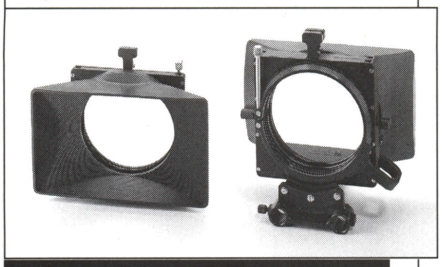

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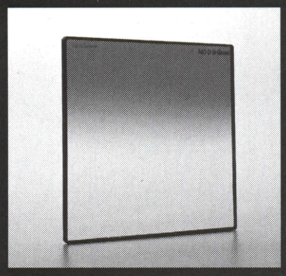

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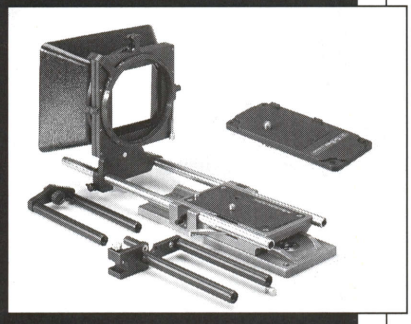

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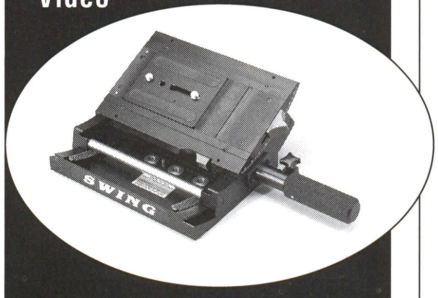

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Ruder of Salt Lake City's Classic Helicopter is just such a pilot (he'll soon be working in L.A. with Craig Hosking at Cinema Air). I'd flown with Dan several times before, and I trusted him. Flying around and landing on the summits of Monument Valley's many pinnacles meant putting our lives in his hands.

We started our scout in cold (around 40°F) and windy weather conditions. To dramatize the visuals and afford easier access, we sought to work near the top of the cliff. Assistant director Kevin Donald and I flew over the permitted towers in search of rock formations that would be exciting to shoot and reasonable to reach. Once we roughed in the location sites, head rigger Mike Weis (who supervised all of the mountain shooting on *Cliffhanger*) set up ropes that we could rappel down for a firsthand look.

I've worked with Weis for some 25 years, and when he tells me a line is good to go, I am confident that it's safe; still, I always try to tie myself to a backup line. This is the most critical stage of such a project. Besides worrying about dangling 500 feet off the deck on a single strand of 11mm perlon, I've got to accomplish three tasks: plot out the action sequence the climber will perform; figure out the best time of day, lightwise, to shoot the setup; and determine where the camera platform is going to go.

I carefully marked off where the platforms would be bolted into the rock. (This has to be right on the money, because once the camera platforms are in place you don't want to have to move them.) Once chalkmarks were made on the rocks, Weis and his crew of riggers went into high gear prepping the site, first removing the area's potentially dangerous loose rock. With a still camera, I caught shots of the action to be made by the climber, and these stills — created in Photoshop and Quark — become our shooting boards. Once we got the agency to sign off on the preliminary stills, it was up to the head riggers to get all of the crew and equipment into these extreme locations. When we returned for the actual shoot, the camera was loaded down to the positions off

cantilevered trusses and portable winches.

We first started using "air stations" in 1989 when I directed and shot second-unit footage for *Star Trek V: The Final Frontier* — some 2,000 feet up on Yosemite National Park's El Capitan. Nowadays, these stations have evolved to include legs underneath for support and unencumbered views all around; they weigh about 40 pounds, and once it's all in place you can situate a tripod and have a very comfortable working space.

One particularly interesting perspective I wanted to get was from the back of a large overhang looking out at the climber as he swung out feet-free on handholds to surmount the roof. I could see from the 'copter that it would be spectacular, and I left it to Mike to climb into the area and set up ropes so we could go in and check it out. It was an

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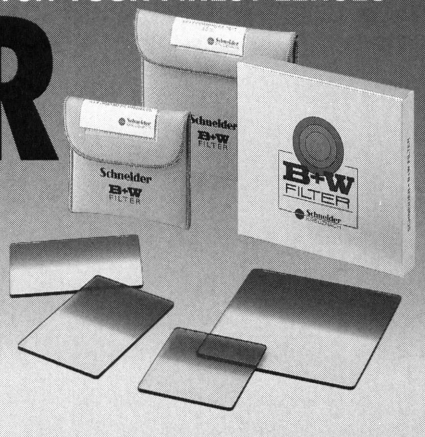

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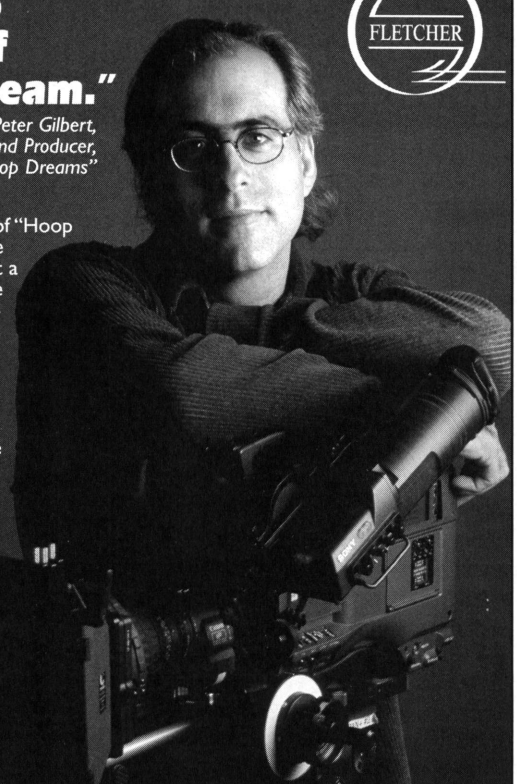

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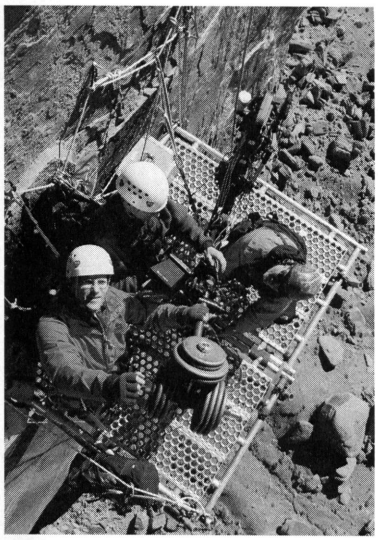


Carmichael and crew are hoisted aloft on a camera platform bolted right into the rockface of a mammoth mountain made of sandstone.

interesting place to be; we realized that the reason there is a large roof is because the entire section of cliff was calved off due to a catastrophic erosion process. (You certainly wouldn't want to be around when that process is happening.) The view from the inside out was spectacular, and again we took out our chalk.

The shoot involved a complex logistical scheme that A.D. Kevin Donald and I worked out. One of the major concerns was deciding when to pull the plug on the day to guarantee getting our crew of 12 people and gear off the pinnacles before dark. The obvious dilemma was that the end of the day offered some great light high on the peaks.

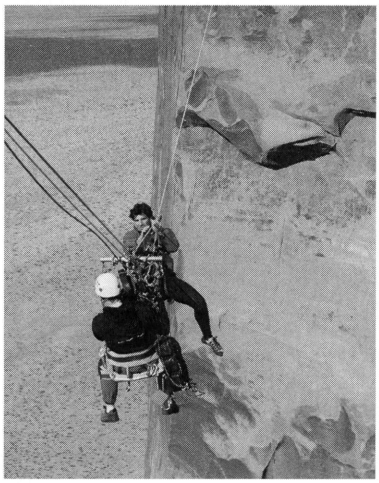
We wound up creating a total of five camera platforms, one of which featured a 7' mini-Porta Jib crane arm on a tripod to lend a sense of motion to the shots. At base camp, we used a large boulder and parallels as an insert stage, and employed Panavision's Frazier lens for macro shots that included the climber's face and foreground hardware. I'm partial to a Pan Arri/Primo lens camera configuration supplied by Panavision Hollywood. We used 5248 film, and RF'ed the signal to video village and the agency reps and clients far below us. The entire spot was shot in four days.

All of my crew members are multisport participants, and our experience ranges from water work to mountain terrain, including snow and ice. A particularly key member of the crew was first A.C. Tom Ryan. Tom is a top assistant with years of climbing experience, and it is literally his back which lifts the camera into position. Specialized camera packs are obviously the order of the day: nothing can be dropped, so everything is tied in. There is no question that the work is dangerous, and we make it a point to look out for one another. A.D. Kevin Donald's motto was "work at the speed of safety."

This spot had one twist. When the climber made the summit, he turned around and BASE-jumped to the ground. That acronym stands for Building, Antennae, Structure and Earth, as in parachuting. We found our parachuting expert in Dennis McGlynn, and we also employed aerial coordinator and sky diving cameraman Tom Sanders to oversee our operation. Dennis would be jumping from 450 feet off the ground, which computes to about five seconds of freefall before hitting the ground. It was serious business. Dennis was confident that he could do our jump, though, and he had 700 similar jumps in his resumé to back up that opinion.

He test-jumped with his parachute (which was emblazoned with the Merrill Lynch logo) a number of times before our shooting day. This kind of low-

Carmichael uses a specially rigged chair to traverse a 600' chasm.



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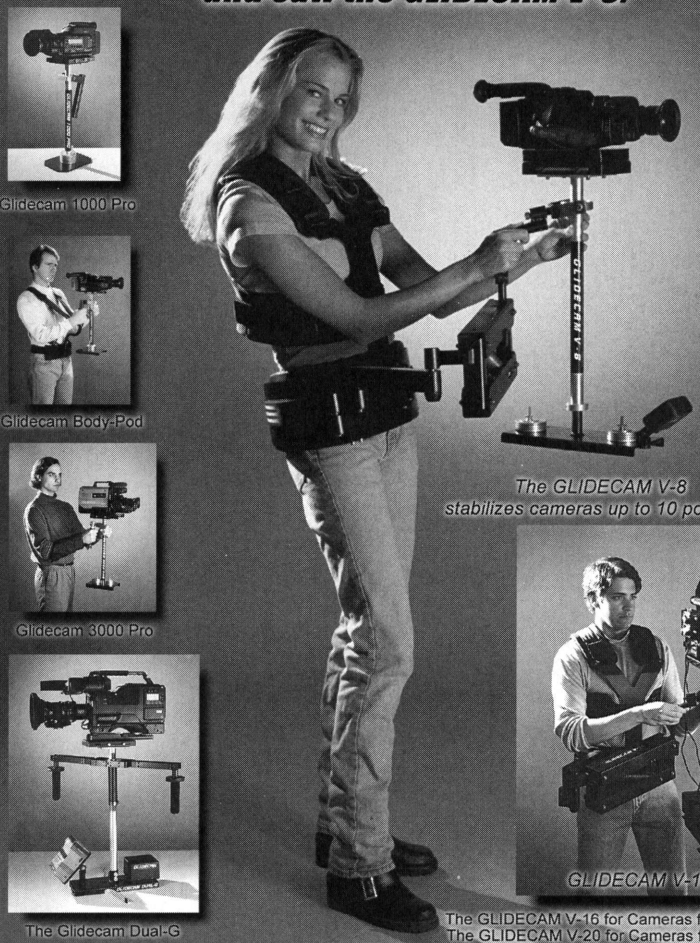

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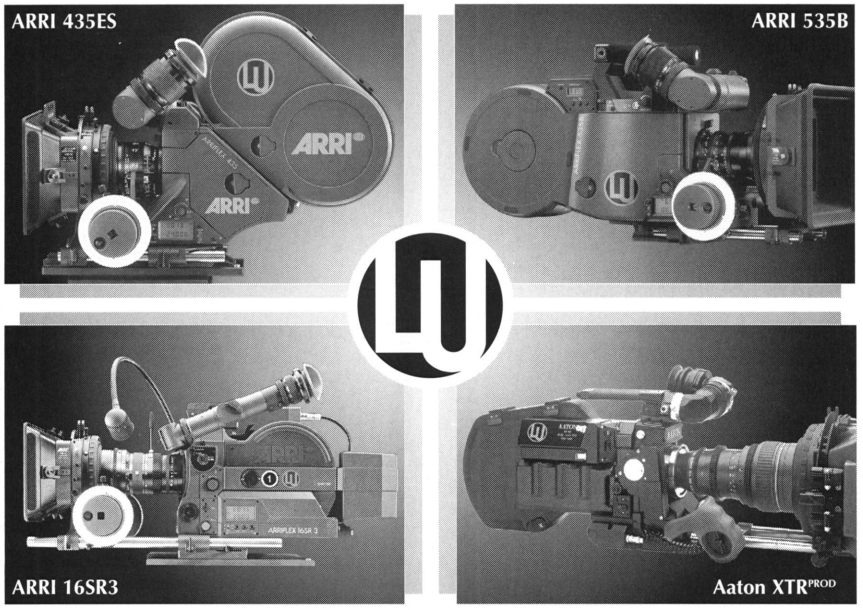

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altitude jump had to be made in perfect, still wind conditions. When the time came to go, Dennis was completely confident. He simply ran by me and my handheld camera (which was equipped with a 14mm lens) and launched into space in perfect layout position. It was quite a sight. Within a second and a half, his chute was deployed, and he was safely on the ground soon after.

Both Tom Ryan and Joe Montgomery had him perfectly in their viewfinders as he jumped and deployed, so we were soon onto the next scene, which was strictly a one-take deal. To fill in this jump sequence, we had Dennis change gear and jump out of a helicopter from 2,000 feet up a couple of times so he could give us more coverage on his flight by the spire.

Our climbing talent, Bob Williams, was a good-looking actor who wasn't lying when he said he was a climber. He very gamely did everything we asked him to, including real lead falls on the rope and flying across the rock face in very dynamic pendulums. He was fit and always ready to go.

At the end of the four days we had successfully moved through all of our camera platform positions. El Niño generously granted us both warm days and beautiful light. As I was shooting the late afternoon summit aerials with Tyler's major gyro mount, the light was a bit too filtered on the first roll. But true to the luck of the shoot, the sun broke through a cloud and hung at about three fingers to the horizon. As we clocked around our climber stepping onto the summit of a jagged spire, he was bathed in the most beautiful, molten light I'd ever been privileged to shoot. That night, however, it snowed eight inches.

Bob Carmichael is an Academy Award-nominated, Emmy Award-winning director/cameraman who specializes in action, sports and extreme environments. His recent credits include work as second-unit director of photography on The First Wives Club; *a 70mm film on the Daytona 500; spots for the 1998 Ford and SeaDoo product lines; and a film on waterfall ice climbing for the National Geographic Society.*

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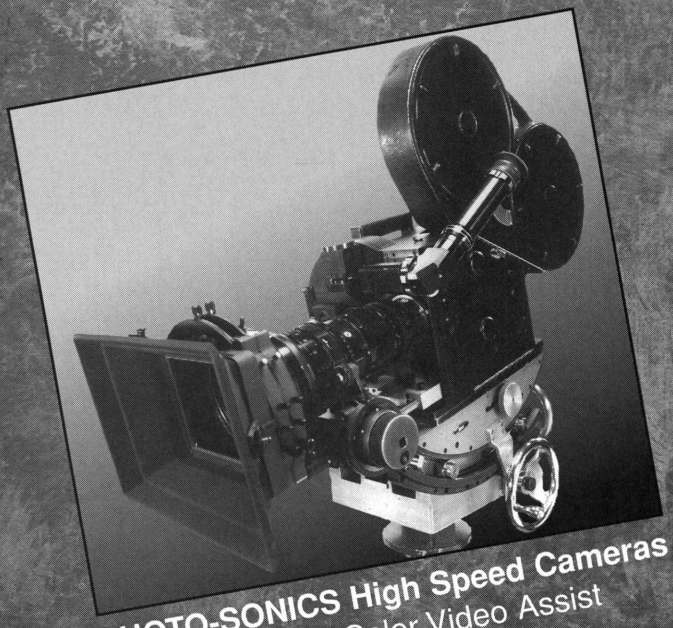

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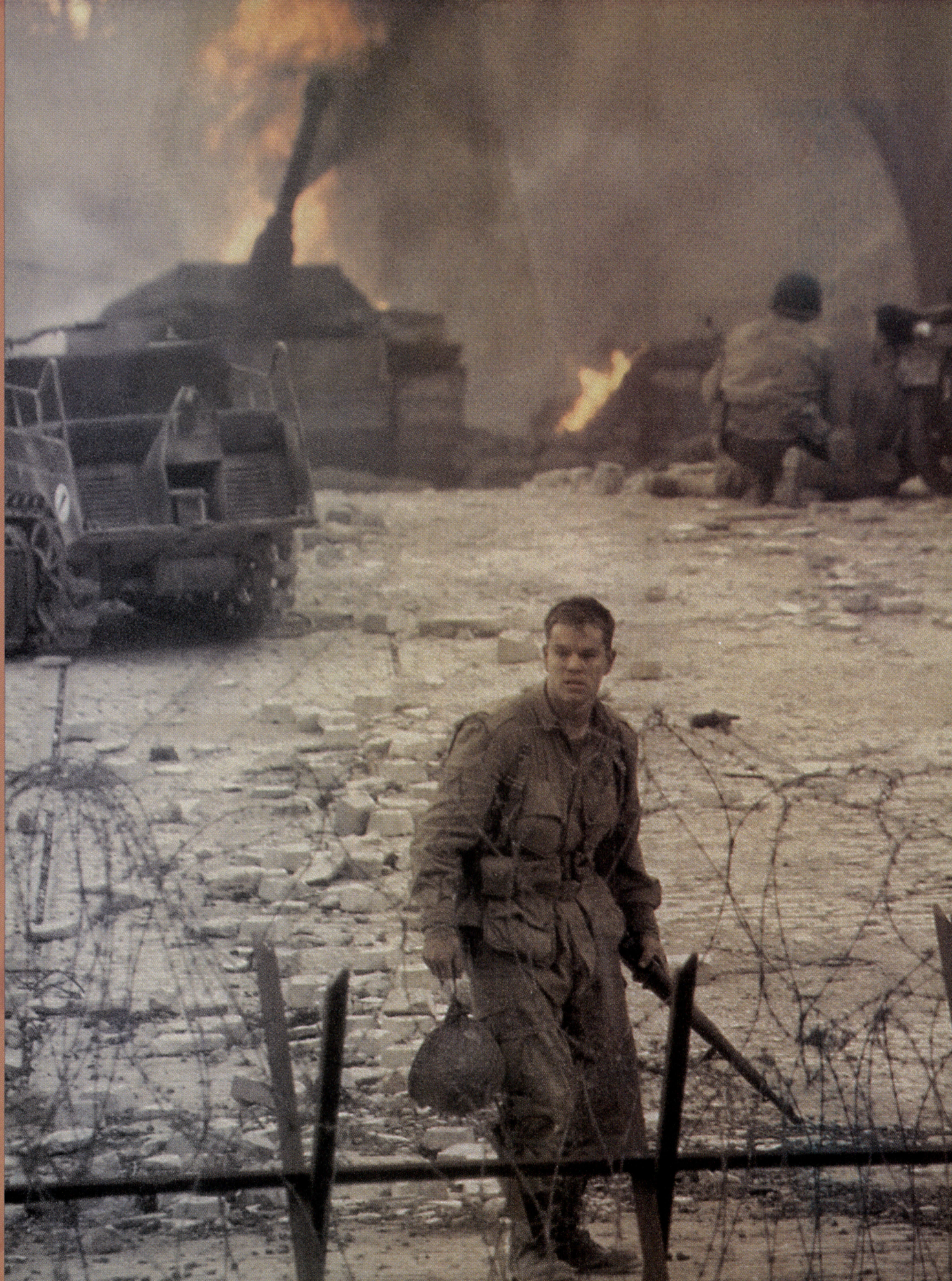

The Last Great War

Cinematographer Janusz Kaminski, ASC and his crack camera team re-enlist with director Steven Spielberg for *Saving Private Ryan.*

by Christopher Probst

Photography by David James

On June 6, 1944, approximately 2,500 American soldiers were killed while storming Omaha Beach on the Normandy coast, as dug-in German defenders assailed the intrepid troops with a barrage of artillery fire from heavy fortifications. "Operation Overlord," the invasion of Europe, had begun, and the bloody event known as D-Day proved to be the turning point of World War II, signaling the beginning of the end for Nazi Germany.

Director Steven Spielberg has revisited this narrative-rich era a number of times during his career, alternately exploring the dramatic, adventurous, tragic, and even humorous aspects of the age. The filmmaker's latest effort, *Saving Private Ryan,* teamed him for a fourth time with cinematographer Janusz Kaminski, ASC, who earned Academy, BAFTA and ASC Awards for the stark black-and-white photography he lent to *Schindler's List* (see *AC* Jan. 1994). Kaminski has since shot Spielberg's subsequent films, *The Lost World* (*AC* June '97) and *Amistad* (*AC* Jan. '98). The latter earned the cameraman both Academy and ASC Award nominations.

Opening with the most graphic and elaborate film depiction of D-Day to date, the $65 million *Private Ryan* uses this monumental event as a springboard for its story. Loosely based upon actual WWII cases of families losing four or five sons in battle, the picture follows Captain John Miller (Tom Hanks) as he leads an eight-man squad behind enemy lines and into France to search for the last surviving Ryan brother (Matt Damon), whose three siblings have been reported killed in action. As the squad advances into greater and greater peril, its members — who include Sergeant Horvath (Tom Sizemore), Corporal Upham (Jeremy Davies), Medic Wade (Giovanni Ribisi) and Privates Reiben (Edward Burns), Caparzo (Vin Diesel), Mellish (Adam Goldberg) and Jackson (Barry Pepper) — begin to question the military's decision to risk eight lives in the hope of saving just one.

Boot camp

After enlisting his principal cast members, Spielberg enrolled the actors in a grueling training course with military advisor and retired Marine Captain Dale Dye, who has lent his expertise to such diverse projects as *Platoon, The Last of the Mohicans, Forrest Gump* and *Starship Troopers.* For 10 full days, the group was subjected to a strict military regimen of pre-dawn reveille, five-mile runs, weapons training and military exercises, while getting no more than three hours of sleep a night under a soggy blanket. When their ordeal finally ended, the haggard-looking actors were primed and ready to simulate combat on film.

"We didn't have to shoot much in terms of makeup tests," says Kaminski with a wry laugh. "After their experience in boot camp, the actors were all pretty much beaten up. *Saving Private Ryan* was a physically demanding movie, because their backpacks were full and the guns were real and quite heavy. After two weeks of shooting, we didn't need any aging makeup — they all had dark circles under their eyes!"

Going to war

Saving Private Ryan's intended preproduction period was severely truncated when Spielberg decided to shoot *Amistad* after completing *The Lost World* and before beginning work on the WWII epic.

Opposite: Private Ryan (Matt Damon) wanders amid the war-torn (and fictional) French city of Ramelle. Operator Mitch Dubin notes, "I'm a firm believer that every lens tells a different story. So many films are shot in close-ups today that you never really get a sense of the geography or where you are. Steven is very specific about saving his close-ups for when they really mean something." Above: Nazi soldiers gun down invading U.S. troops. "There are only a few wide shots of the battle and they're very powerful," states Kaminski. "Steven is so masterful at designing shots with the camera. He puts you right there with the soldiers. The carnage happens right in front of you."

The Last Great War

"The film begins with a very realistic depiction of the Omaha Beach invasion," reveals Kaminski. "It's very chaotic as soldiers are dying left and right. There's one scene where a soldier gets his arm blown off and is in shock. He then finds his arm, picks it up and walks away with it. It's a very graphic and horrifying image." The film's action was planned by stunt coordinator Simon Crane, who worked closely with special effects coordinator Neil Corbould.

Nevertheless, Kaminski spent two weeks doing camera tests in Los Angeles prior to leaving for England, where most of *Ryan* would be shot.

Kaminski notes that it's during these test periods that he determines the look of a film. "When I read a script and like the story, I respond to it on an emotional level," says the cinematographer. "I have a concept of who the characters are and where the story is taking us, and I then imagine how I can enhance the storytelling through visuals. The story automatically dictates how I'm going to light it. That may sound simple, but it's not, because it's my personal interpretation of a script that allows me to create the visuals. That interpretation is based on my own life experiences, aesthetics, education, and knowledge, all of which help to shape my understanding of a story.

"In a funny way, I previsualize my work by cancellation. For instance, I may cancel out other movies that I *don't* want a particular picture to look like. I may not have known exactly how I wanted *Saving Private Ryan* to look, but I knew I didn't want it to look like *The Lost World,* which had hard light and contrast. By eliminating certain visual styles, I narrow down the concept for the film I'm working on. I then do a lot of research, looking through books and paintings and watching other movies. I think of certain color schemes, compositions and camera moves that I'd like to use in the film, and all of those choices result from what the written material dictates.

"Later on in prep, I start doing tests to figure out how to achieve the appropriate visual style by applying various camera techniques. For example, even though *Private Ryan* is not necessarily a true story, it's set in a very realistic scenario. We're all familiar with World War II and the invasion of Normandy, so there were certain historical realities that I had to fulfill. And obviously, a lot of our knowledge of that war comes from footage shot by the combat photographers or from very masterfully staged films, such as the Nazi propaganda films of Leni Riefenstahl."

Spielberg and Kaminski initially considered rendering *Private Ryan* monochromatically, as they had previously done on *Schindler's List.* "Black-and-white was the right choice for that film because of the subject matter and because most of the real footage of Nazi atrocities was photographed in black-and-white," relates Kaminski. "However, there *is* a tremendous amount of documentary footage from World War II that was photographed in color. In fact, [renowned director] George Stevens was a combat cameraman and shot a great deal of footage in color. Steven and I really didn't want to shoot *Private Ryan* in black-and-white, and I think it would have been a little pretentious to do another World War II film that way.

"We also wanted to shoot this picture in color because there is some blood in the film and we wanted to play with the reds, even though we did desaturate the colors through the use of ENR," Kaminski expands,

noting that the use of the special Technicolor process was a key reason to do extensive camera tests. "I knew the movie would have more of a bluish tone to it, and with 70 percent ENR, the color of the blood on the uniforms and the ground was a primary concern. For scenes in which the characters got wounded, we wanted to know how the blood would look on the uniforms and how it would look after they wore those uniforms for a couple of days. Because we were dealing with a World War II drama, the wardrobe was already muted, and since we were shooting in England and Ireland, we had day after day of foggy, rainy climate, which automatically made the light more diffused and the colors more pastel. We therefore compared various levels of ENR, and based on those tests, the special effects department mixed a certain amount of blue into the blood to make it a bit darker than they'd normally use.

"I think the biggest misconception about ENR that everyone talks about is what the process does to the shadows to make them deeper and richer," he adds. "Yes, that *is* one aspect of the process, but the biggest thing about ENR that no one seems to be talking about is what it does to the highlights and colors. If you shoot a test and compare a shot with ENR and without, the clothing will look much sharper and you will see the texture and pattern of the fabric in the ENR print. This was especially true on *Amistad*, on which we used about 40 to 50 percent ENR. As a result, all of the Africans' clothing had much more texture. On *Saving Private Ryan*, the uniforms benefitted as well. The edges of the shirts and the helmets were sharper, and the process also worked magic on metallic surfaces and water reflections, which become like mercury. It's so gorgeous."

After arriving in England, Kaminski conducted another week of tests to further pinpoint his visual approach. "[Famed *Life* magazine photographer] Robert Capa's war photography was one of the guiding references for the film," he explains, "but Steven and I didn't talk much about how we were going to do the movie during prep. I prefer to shoot tests that show him what I intend to do photographically. By that point, I'd already made certain selections and decisions about a possible visual style, so I wanted to give him a range of different ideas and techniques to get him excited and inspired. On *Private Ryan* I wanted to take a major Hollywood production and make it look like it was shot in 16mm by a bunch of combat cameramen. That was a conscious decision, but thankfully Steven is a very visually-oriented director and is willing to take certain chances. However, he also has a sense of what is too far!"

American soldiers fight to take the beach. "Steven blocks the scenes with the camera in mind," relates Kaminski. "He has an amazing sense of how to utilize the foreground, middleground and background. We have a very collaborative process and we both take great pains to listen to each other, but we do often wind up fighting over who gets to look through the camera first. Of course, he usually wins most of the time."

Battle plans

Saving Private Ryan begins with a truly harrowing 25-minute depiction of the carnage and chaos experienced by the soldiers storming Omaha Beach. Both Spielberg and Kaminski sought to infuse the sequence with a high degree of realism, and studied newsreels and documentaries shot by combat cameramen in order to capture a true sense of the insanity and frenetic panic of war. "We wanted to create the illusion that there were several combat cameramen landing with the troops at Normandy," the cinematographer submits. "I think we succeeded in emulating the look of that footage for the invasion scenes, which we achieved with both in-camera tricks and other technological means. First off, I thought about the lenses they had back in the 1940s. Obviously, those lenses were inferior compared to what we have today, so I had Panavision strip the protective coatings off a set of older Ultraspeeds. Interestingly, when we analyzed the lenses, the focus and sharpness didn't change very much, though there was some deterioration; what really changed was the contrast and color rendering. The contrast became much flatter. Without the coatings, the light enters the lens and then bounces all around, so the image becomes kind of foggy but still sharp. Also, it's much easier to get flares, which automatically diffuses the light and the colors to a degree and lands a little haze to the image.

"If I had two cameras running on a scene, I'd mismatch the lenses on purpose, using one with coated Ultraspeeds and one without coatings. That gave us a certain lack of continuity in picture quality, which suggested the feeling of things being disjointed.

The Last Great War

Soldiers huddle at the "shingle," a small area at the base of the Normandy cliffs where they are protected from gunfire. "Janusz is probably the most instinctual and emotionally-connected cameraman I've worked with," states Dubin. "His choices for camera and lighting are based on what he feels for the scene. Steven is very instinctive as well, and I think that's why Janusz works well with him."

"Next, we shot a lot of the film with the camera's shutter set at 45 or 90 degrees. The 45-degree shutter was especially effective while filming explosions. When the sand is blasted into the air, you can see every particle, almost every grain, coming down. That idea was born out of our tests, and it created a definite sense of reality and urgency."

Spielberg additionally wanted the camera itself to *feel* the impact of the explosions. Key grip Jim Kwiatkowski reports, "During the tests on the backlot at Universal, Steven was talking about this one shot in *Empire of the Sun* in which he shook the camera to get the effect he wanted. With that in mind, the best boy, Bob Anderson, attached an electric drill to the pan handle of a fluid head and locked an oblong bolt with an eccentric washer in the chuck. When activated, it created a wobbling movement and the camera shake we wanted."

"It's a great effect," attests Kaminski, "but you certainly can't handhold the camera with a drill attached to it. Plus, your eye is constantly bopping against the viewfinder. So for handheld work, we used Clairmont Camera's Image Shaker, which is an ingenious device. You can dial in the degree of vibration you want with vertical and horizontal settings, and mount it to a handheld camera, a crane, whatever. It's heavy, but my camera operator, Mitch Dubin, did some amazing handheld work with it. At first we used it very conservatively, like when there was an explosion or a tank rolling by, but after seeing dailies, we just dialed it in and out as Mitch ran with the camera.

"I also used another technique that Doug Milsome [BSC] utilized on *Full Metal Jacket* [see *AC* Sept. 1987] where you throw the camera's shutter out of sync to create a streaking effect from the top to the bottom of the frame. It's a very interesting effect, but it's also scary because there's no way back [once you shoot with it]. It looked great when there were highlights on the soldier's helmets or epaulets because they streaked just a little bit. The amount of streaking depended on the lighting contrast. If it was really sunny, for instance, the streaking became too much. However, if it was overcast with some little highlights, it looked really beautiful. The streaking also looks fantastic with fire, and that's what Milsome primarily used it for in *Full Metal Jacket*."

Kaminski employed Panavision Platinum and Panastar cameras throughout the *Private Ryan* shoot, and had Samuelson Film Services in London prepare one unit with a purposely mistimed shutter in order to create the described streaking effect. Used in combination with a narrow shutter, however, the effect was negated as the shortened shutter interval fell within the moment that the film was in its stationary position. Due to this anomaly, however,

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The Last Great War

Production designer Tom Sanders created the decimated French city of Ramelle in an abandoned aerospace facility 45 minutes north of London, which also served as the company's base camp and backlot.

the "streaking" camera could also be used for normal shooting provided that the shutter was set between 45 and 90 degrees.

Storming the beach

With a visual approach locked in, the *Private Ryan* production was fully geared up for battle. While scouting the actual Omaha Beach in France, which is now a historical landmark, the filmmakers found the area to be too developed to suit their needs. The company then found a stretch of coastline in Ireland that featured an uncanny similarity to Normandy's gold-sanded beaches and sheer cliffs. Production designer Tom Sanders transformed the Irish coast into a war-torn battleground by strategically dressing the landscape with Teller mines, iron hedgehogs and barbed wire, as well as concrete pillboxes and bunkers.

Kaminski shot *Private Ryan* in the 1.85:1 format entirely with Eastman Kodak EXR 5293 stock, which he pushed one stop to a 400 ASA rating. He also utilized a 1/2 Coral filter in place of normal 85 correction to lend a slight bluish tint to the imagery. "Pushing the film shifts the contrast and makes it easier to burn the highlights out," the cinematographer explains, "but you also get a bit more detail in the shadows. Occasionally, I pushed the film two stops to 800 ASA and it was still fine. I'd take 93 pushed two stops over using Vision 500T pushed one stop.

"Additionally, I again used a Panaflasher in conjunction with the ENR process, as I had on *Amistad*. Because of the contrast that you get with the ENR, I was flashing at about 15 percent so that I didn't get totally sharp blacks. I was looking for a slightly flatter look. The Panaflasher also contributed greatly to the color being more desaturated. You gain the contrast back with the ENR, but you've desaturated the color already with the Panaflasher."

In re-creating the infamous D-Day invasion, the production located many of the original "Higgins boats" landing craft — in Palm Springs, California — that were used in the real-life 1944 assault. The film company also employed 750 extras provided by the Irish Army, who were then dressed in uniforms painstakingly re-created by costume designer Joanna Johnston and equipped by armorer Simon Atherton with authentic period weaponry. The beach was intricately rigged with squibs and mortars by special effects supervisor Neil Corbould, while the "war" itself was meticulously planned and rehearsed by stunt coordinator Simon Crane.

"We started *Saving Private Ryan* with the invasion scenes, which we shot for three weeks," recounts Kaminski. "The physical and technical challenges of just getting the shots were daunting. Steven wanted to block huge day exterior scenes with hundreds of extras and do them in just one or two takes with two or three cameras. But there was a reason for that as well. If you have a huge field that takes a day and a half to pre-rig with squibs and explosives, you only have one take!

"Amazingly, Steven would often just cover a scene with one continuous shot. There were a couple in which blood or water splattered on the lens, but we kept shooting because that's what I assumed would happen in reality. Combat cameramen would not have time to clean the lens. They'd just have to keep on going. What we got really had a documentary feel to it.

"We shot handheld for probably about 90 percent of *Saving Private Ryan*," Kaminski notes, "whereas on *Schindler's List*, we handheld the camera about 60 percent of the time. Shooting that way was very demanding on the operator, Mitch Dubin, as well as B-camera/Steadicam operator Chris Haarhoff, because most of the handheld work was done from almost ground level, not from the shoulder. When the soldiers were running, they were really running low. We wanted to be very close to them, so Mitch and Chris would often have to operate while looking at a little monitor as they ran. Those shots were also difficult because the camera had to be covered to protect it from all the sand and explosions, not to mention that everyone's movement had to be choreographed because we were running across fields covered with live squibs and mortars." The cinematographer adds that he was aided by A-camera first A.C. Steve Meizler and B-camera first A.C. Kenny Groom, as well as second A.C.s Tom Jordan and Robert Palmer, and loader Roslyn Ellis.

Additional action was covered by C-camera operator Seamus Corcoran.

"Janusz and Steven wanted the camera to be a real participant in the film," Dubin details. "The soldiers jump out of the landing boats but are trapped in the surf by bullets from the German emplacements on top of the cliffs. At a certain point they make this mad dash to the edge of the cliff, which they called the 'shingle.' That was a very involved shot with all of the actors, hundreds of extras and a huge number of effects. We had three separate cameras rolling; I was following Tom Hanks as he ran. When we rolled the cameras and Steven called action, all hell broke loose. I just remember running for my life and following Tom. When we hit the shingle, we both looked up at each other, astonished that we had actually run through this event. We did it in one take and then moved on. That shot really set the tone for rest of the film."

Adding to Dubin's task was the weight of the Platinum camera (about 34 pounds with 500' mag and lens) when coupled with the Image Shaker (about 15 pounds) and Panaflasher (about 4 pounds). The extensive use of low-perspective, handheld work prompted the camera department to call in a lighter unit. "We got a Moviecam SL, which worked out great," recalls Dubin. "It's one thing to carry a camera on your shoulder, but everything in this film was down low, which is *very* difficult, especially when you're running with the camera almost touching the ground.

"In Steven's movies, the camera is always an active participant in the storytelling process," Dubin continues. "Along with the primary concerns of the script and the acting, he tells the story through the framing. Accordingly, the frame and image are of utmost importance. When you add the handheld camera into the mix — which is a very immediate and responsive form of operating — the whole process becomes even more exciting."

Though he strove to simulate the battle's graphic scenes of carnage as realistically as possible, Kaminski didn't lose sight of the real importance of the story. "The film is realistic because of the actors' performances," he opines. "Audiences will be shocked by what they see during the invasion sequences, but the most emotional moments are when the characters look at each other afterward and have a chance to reflect on what they've just experienced. There's a little push-in shot on Tom Hanks after they've conquered the beach — which we've just witnessed firsthand — and his reaction is such a powerful moment that the audience will just lose it emotionally. It's this human element that makes the film so powerful. We are all familiar with gore, but the way that it is presented in this film is similar to how it was done in *Schindler's List* — bang and you're dead."

Lighting D-Day

Fortunately for *Saving Private Ryan*'s crew, the production was

For a shot following Captain John Miller (Tom Hanks) out of the English Channel and onto Omaha Beach, key grips Jim Kwiatkowski and John Flemming had a 40' trailer backed into the water, which served as a platform for a length of dolly track leveled on scaffolding. An Enlouva crane was then utilized to extend over the water to support the camera, which was fitted into a water-tight housing. "The camera was underslung with Modern Studio Equipment's bungee rig so that the operator could freely hold the camera while we dollied with the crane, creating a 60' move that led the actor out of the water," explains Kwiatkowski. "The water was only about 4' deep, but it was still difficult for the operator because he had to trudge through the waves and dodge all of the obstacles."

The Last Great War

Right: The crew rigs a process trailer shot of Captain John Miller and Sergeant Horvath (Tom Sizemore). Below: A crane suspends a 20' by 40' silk over the beach location. Using this rig in conjunction with smoke, the filmmakers were able to achieve a consistent overcast shroud for the invasion sequence. "For the shots in which soldiers were going up the cliffs," elaborates Kwiatkowski, "we had rigger Ginger McCarthy place one crane on top of the cliff and one below because the sun traveled perpendicular to the beach; it started over the ocean and ended over the hill."

blessed with fairly consistent overcast skies throughout the three-week D-Day shoot, which closely resembled the actual weather conditions on that fateful day in 1944. Kaminski took this into account while devising his approach to not only the Omaha Beach sequence, but the entire film's photographic design.

"For the most part, we really didn't light much on the invasion," explains gaffer David Devlin. "When the actors were in the Higgins boats, we did add some light with white and silver bounce cards to up-light the actors a little so we could see their eyes under their helmets. The 'lighting' was more about how the negative was being exposed, the lenses and the use of the ENR. The great thing about war movies is that almost everything is drab, dark and dirty, so we weren't fighting those elements. In fact, the actors' eyes become [comparatively] bright because their faces are so dark and dirtied."

Kaminski determined that with constant overcast light, he could suitably control the film's look with the aid of the Panaflasher and the ENR process. Additionally, he incorporated the heavy use of smoke — which obviously was a key component in selling the "war" visually — as an essential ingredient in his photography. Dense black smoke also offered the added benefit of blocking out any unwanted sunlight that might have sneaked through the cloud cover. Devlin recalls, "One of the most amazing and awful things I've ever seen were these big drums of diesel fuel that the special effects guys were burning to create huge clouds of black smoke. They also designed a system for making white smoke that was mounted in the bed of a pickup, which was attached to a trailer with a 200-gallon tank of diesel fuel. They had about six of these pickup trucks that could drive up and down the beach as a self-contained unit. The lighting for that whole sequence was more about taking the light *away*, and when they turned those smoke machines on, it would cut down three or four stops of exposure."

"For closer shots, we'd sometimes bring in a bounce card or solid for negative fill," adds Kwiatkowski. "One of the things I've learned over the years while working outside is that if the cinematographer wants to control the sunlight — and the production can afford it —you should have a crane and a large frame standing by. That way you can cover a large area and get the lines [of the overhead's coverage] out of the shot. Because we used a 30' by 30' silk *and* smoke on *Private Ryan*, the smoke would cover any of the lines made by the silk. Between those two elements, the 'lighting' was consistent and it worked great."

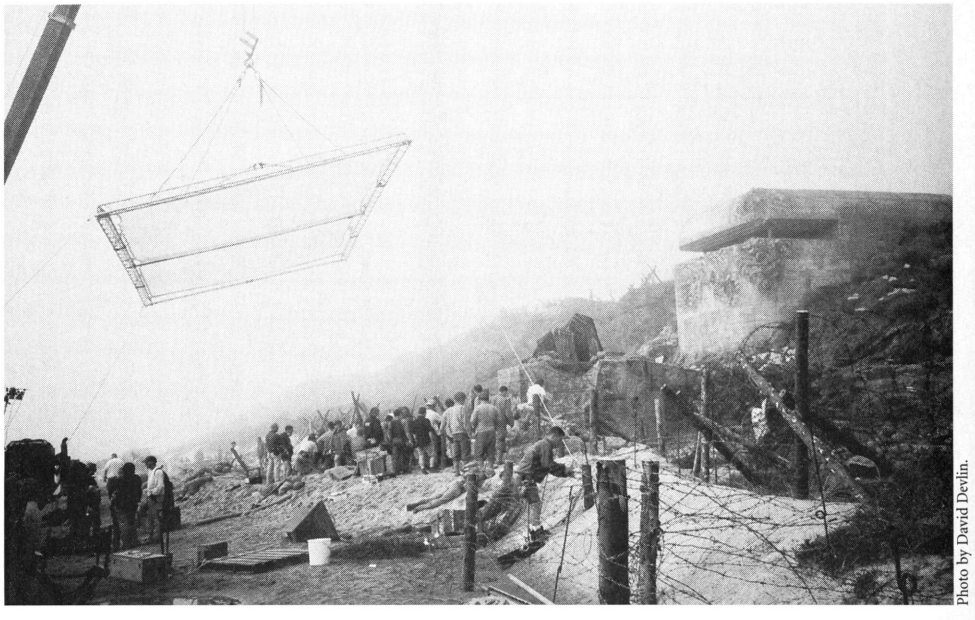

Photo by David Devlin.

The search

Following the frenetic chaos of the D-Day sequence, the film takes a breather to develop the characters and establish the squad's mission to find Private Ryan. Kaminski explains, "During the scenes where the characters are not in combat, the camera is more at rest and on a dolly more often. We sometimes used a special 'switcher track' designed by Jim Kwiatkowski, which allowed us to dolly in one direction and then come

to a junction and dolly 90 degrees in another direction [see full details in New Products, page 99]. We also paid more attention to the lighting in those sequences. I wouldn't introduce sunlight into a scene that was overcast, but with the ENR process, we had to light the actors because the image could get too contrasty, especially under the helmets, and we would start losing their faces. Sometimes we'd just fill them in with showcards, or sometimes we'd use 12K or 18K HMIs bounced from Griffolyns set far away."

Devlin recalls, "There's a scene in which Tom Hanks and Tom Sizemore are driving in a jeep and talking. I was busy lighting the jeep. It was a simple setup using a 4K Par through two layers of diffusion to provide an overall base to fill in their eyes as they rode in a jeep, which was on a Shotmaker-type camera car. I really didn't think about what was going to be in the background. When we finally went to shoot that shot, however, I realized that there were literally hundreds of the Irish Army extras marching in the background while the scene went on for something like four minutes. The power of having all of these men and machinery in the background as they drove along was really incredible."

Kaminski was also able to modify the sunlight to his liking for some shots by utilizing Rosco #3004 Half Soft Frost diffusion in place of an overhead silk. "For some of the exteriors, we chose to use Half Soft because it allows the light to have some direction while still softening it," Devlin explains. "Whereas with a silk, you create an overall soft ambiance, but you then have to compete with the much-brighter backgrounds. A lot of times there's really no difference between having a silk or a solid up. One nice thing about Half Soft Frost is that it allows the sun to have a strong direction, and yet the light will wrap enough to fill people's eyes."

As the soldiers continue their quest for Private Ryan, they take shel-

Below, left: Dolly grip John Flemming — who shared key grip duties with Kwiatkowski — aids Dubin as he handholds an extremely close "wide" shot with a Panavision Frazier lens.

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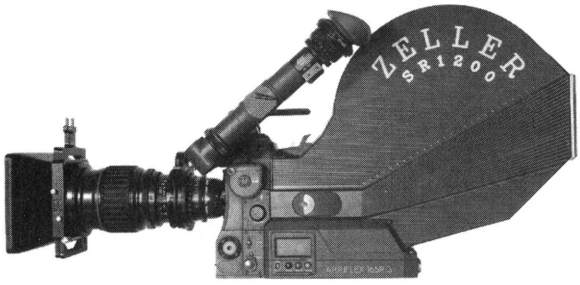

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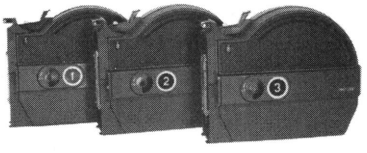

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The Last Great War

An overhead shot displaying the scope of the Ramelle set. A network of conduits running underneath rubble and buildings carried electrical cabling to a series of distribution boxes cleverly concealed within the debris. "It was hard to control the sunlight in Ramelle because the buildings were so high," recalls Kwiatkowski. "So again, we used smoke as a means to take the light out. We had to position — and often move — the smokers according to the wind."

ter for the night in a bombed-out church. Illuminated by candlelight, the "soldiers are sitting and analyzing what has happened and what is ahead of them," Kaminski notes. "It's a very beautiful, underlit scene — about three stops underexposed — that has a painterly feel, as if it was lit only by the candles. There's a very nice section of dialogue between Tom Sizemore and Tom Hanks. I wanted to create the sense that the light was coming from the candles below them, but I didn't want to get big shadows. I ended up lighting them with China balls fitted with ½ CTO and ½ CTS. I then used a flag just outside of frame to take a little of that soft light off Sizemore, so his face was a little brighter on the bottom and then dropped off. I don't like candle flicker effects very much, so the key was a normal [non-flickering] light, but I did have a little flicker on the fill to give it some movement.

"I'd tested China balls in the past and never liked their effect, but I'm learning more about how to use them now. The key is to underexpose by 1½ stops. You also have to keep them just outside of frame but away from the walls, so you get that nice falloff in the light. Philippe Rousselot [AFC] has been using them for years, but if you look at his films, you'll notice that the people are always positioned away from any walls. He may have a very soft China ball a few feet away from the actors, but everything falls dark behind them. Because there no other light reference in the frame, their faces still glow even if the shot is 1½ to 2½ stops underexposed."

Home of the brave

Although shot entirely in England and Ireland, there are a few scenes in *Saving Private Ryan* that ostensibly take place in the United States. The first occurs just after the D-Day invasion, and establishes the premise that three of Private Ryan's brothers have been killed in the war. "There's a scene in which we see this huge room filled with secretaries writing death notices to the families of all of the deceased soldiers," reveals Kaminski. "We shot that in an existing location in England that used to be an airplane manufacturing facility. For all of the scenes set in America, I wanted to introduce a bit more color and create more of a sense of sunlight as a relief from the muted tones of the rest of the film. I therefore had 18Ks pumping in the windows."

"For the scene in question, we had eighteen 18Ks outside this band of windows that were mounted on a construction trussing and fitted with ¼ CTO and CTS," expands Devlin. "A problem that I'm sure everyone has struggled with is that even though you may put an 18K outside a window, it's never bright enough; the background still blows out. In this circumstance, we didn't want to deal with that. It was a big shot, so it meant a lot for us to nail it. At first, we wanted to put dichroic Dino lights up to create this big wash of light so the audience would really feel the heat of the sun. But because they really don't use dichroic Dinos in England, we ended up using the 18Ks, which I put as close together as possible. Since there were so many of them, we really didn't see multiple shadows.

"Because the windows' mullions were made of 8'-wide I-beams, we certainly couldn't hide lights behind them. If we'd put up only two or three 18Ks, we'd have wound up fighting the mullions creating criss-cross shadows, which would have forced us to put up flags. But once you start putting up flags, the light becomes defined and it no longer looks like one source anymore; it's just terrible! But [using an array of] 18Ks worked out quite well. It was kind of like having our own sun. We could say, 'We want the sun to be three stops over,' and we didn't have to fight to control the ambiance in order to expose it."

Once more unto the breach

Considering the intensity of the picture's opening sequence, the filmmakers felt that *Saving Private Ryan*'s ending needed a final skirmish with the Germans in order to balance the film's dramatic weight. This climactic sequence was set in the fictitious French village of Ramelle. Production designer Tom Sanders

built the decimated town in Hatfield, Hertfordshire — approximately 45 minutes north of London — at the abandoned British Aerospace facility which served as the production's backlot and English base camp.

"The set Tom Sanders built was amazing," recounts Kaminski. "It was three blocks long and amazingly detailed. As a cinematographer, you have to keep your eye on the smallest details in art direction; when you're working on such a large-scale film, only you have an idea of what's going to appear on the negative. *Private Ryan* is so authentic that the smallest details that one could normally get away with wouldn't work here. If a group of soldiers are sneaking against a wall and that wall doesn't look absolutely real, you're ruining the scene, no matter how good the scene may be."

Devlin offers, "Tom Sanders did a great job with the coloring and in making the buildings distressed and dark, but the one thing that really made the look of the movie was working with the standby painter, Joe Monks. When we started working in Ramelle, if we felt a building was too bright, and that bringing in flags and cutters for a simple day exterior shot would involve too much work, we'd have Joe come in and make the building darker. We'd give him a 10' by 40' wall and in five to 10 minutes he'd be done. That gave the sets much more depth and separation."

Kaminski found that he used much more lighting in the village than he could in the open fields of Normandy simply because there was the opportunity hide the fixtures and illuminate the interiors of the buildings. The village set was pre-rigged with cables in conduits that ran under the entire town. Rubble was then piled on top of the pipes to hide the distribution boxes. "There's a shot where Jeremy Davies runs into a building and sees through a window to one side that the Germans are approaching," submits Devlin. "It was very dark inside the building [compared to the outside], so in order to maintain a certain amount of ambiance and the feeling of light coming in through the window, we used 18Ks with Half Soft Frost to blast through the windows."

"That was a great shot," agrees Dubin, who describes how he operated the scene: "We started on the bombed-out street as these German tanks approach. The tank shoots, blows up an emplacement, and the whole frame fills with smoke. Then Jeremy comes running out of the smoke and we follow him across the street as he runs into a burned-out café. We run up some stairs after him to the second floor and see out the window that another German tank is advancing and firing toward us. Jeremy runs across the room to

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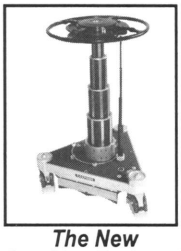

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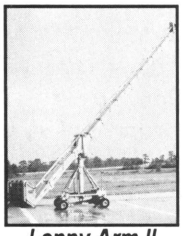

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The Last Great War

Miller and Horvath reflect upon the troubles of war in an abandoned French church. Kaminski rendered the scene with very low-key, underexposed lighting motivated by the candles, which he augmented with China balls gelled with ½ CTO and CTS.

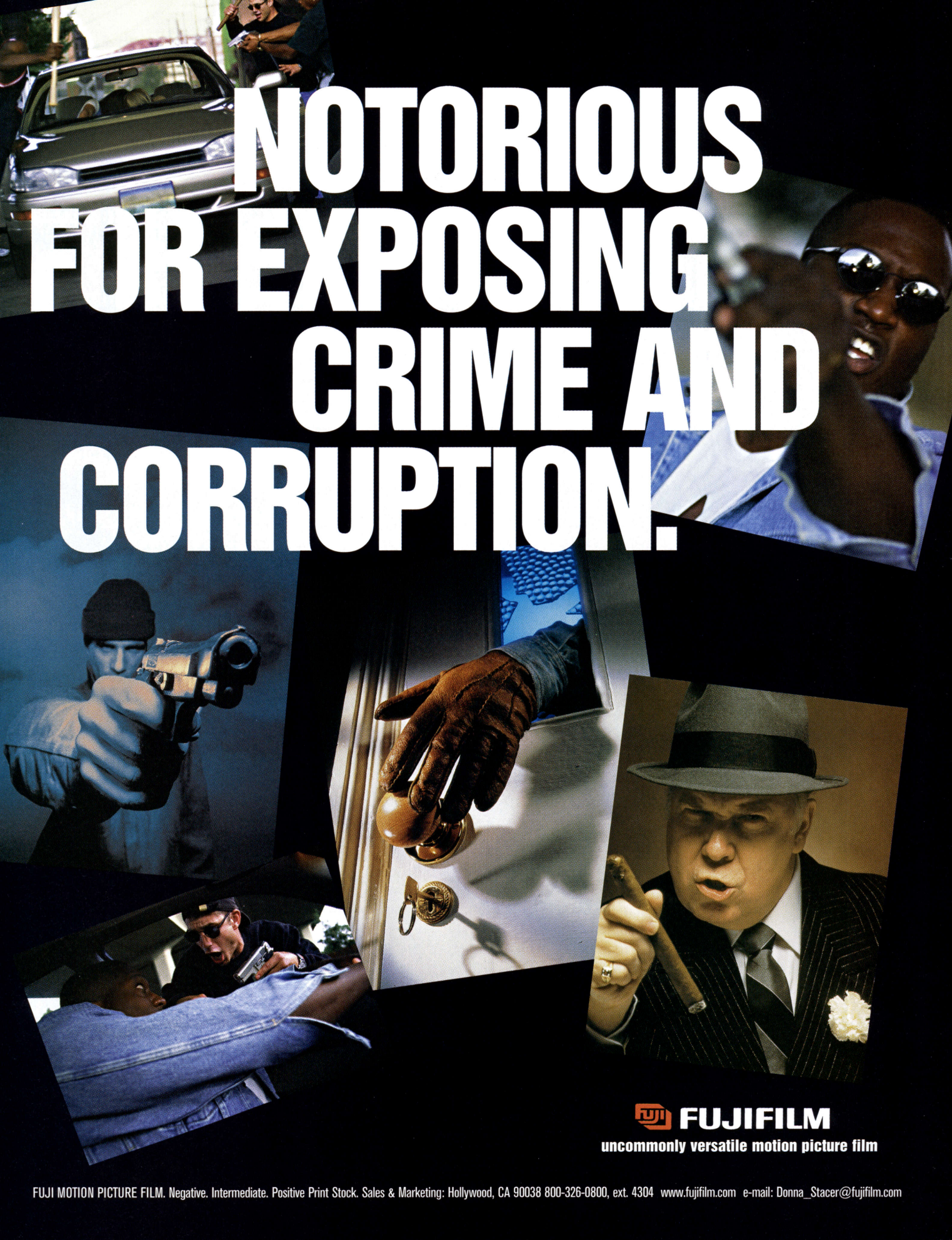
another window and we follow him. But as he stops at the window, the camera continues moving, going outside the window to show the view down the street, raking the building. Dolly grip John Flemming and his crew built a platform so that I could walk right out the window and see down the street. I really had to have faith in John, since I was blindly walking out the window and had to be perfectly positioned on that platform!"

War and remembrance

Kaminski and his crew members all feel that *Saving Private Ryan* was truly a once-in-a-lifetime experience. And though the lighting approach was somewhat simplistic, the resulting imagery is breathtaking. "You don't always have to provide beautiful lighting," submits the cinematographer. "I often think ugly lighting and ugly composition tells the story much better than the perfect light. Sometimes a brightly front-lit image may be much more powerful than a silhouette. It all depends on the story. You can't really preconceive certain visual metaphors, because then the symbol really isn't a symbol anymore — it's more of a gimmick. What's great about cinematography is that you work from your instincts and people later see your work and come up with [an analysis] that you didn't even realize, but which may make perfect sense.

"I'm learning more and more about lighting," he concludes. "But you have to be encouraged by the directors. They allow you make the choices that take the movies to a different level. Directors can allow cinematographers to advance to another level, because we all have that capability in us. Some are so scared of taking risks that they won't allow their cinematographers to try something new. But you can create such powerful and meaningful images by taking chances. I'm talking about things like what Robbie Müller [BVK, NSC] did on *Breaking the Waves*. Bob Richardson [ASC], Vittorio Storaro [ASC, AIC] and Malik Sayeed are also very experimental. Newton Thomas Sigel did some great work on *Fallen*. And what Harris Savides did on *The Game* was fantastic; I can't wait to see what he did for [actor/director John Turturro's upcoming film] *Illuminata*.

"We've all got the ability to do groundbreaking work, and nothing is stopping us from using very experimental techniques in a major Hollywood movie if the subject matter allows it and the director is willing to go there." ■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Five-Star General

Steven Spielberg answers *AC*'s questions about his cinematic battle plan for *Saving Private Ryan.*

Interview by Stephen Pizzello

Photography by David James

Over the past half-century, World War II has been one of cinema's favorite subjects, spawning a genre that rivals the Western in sheer breadth. Countless films have been made about the granddaddy of all global conflicts, a roll call that runs the gamut of patriotic, action-oriented epics (*Sands of Iwo Jima, Twelve O'Clock High, The Great Escape*), searing documentaries (*The Sorrow and the Pity, Shoah*), biographical portraits of larger-than-life heroes (*Patton, MacArthur*) and villains (*Hitler*), romantic dramas (*From Here to Eternity, Casablanca*), spy thrillers (*Saboteur, Eye of the Needle*) revisionist satires (*Catch-22*), comedies (*Mister Roberts*) and even musicals (*South Pacific*).

Given the staggering number of pictures set during the "Good War," it would seem that a fresh perspective on this monumental event would require the attention of a truly gifted auteur with a unique sensibility. Enter Steven Spielberg, who was recently named the "most influential director of the 20th Century" by *Time* magazine. Spielberg demonstrated an affinity for the era with *1941*, the *Raiders of the Lost Ark* trilogy and *Empire of the Sun* before stunning the world's moviegoers with *Schindler's List*, a masterful dramatization of the Holocaust. The filmmaker and studio mogul has returned to his favorite historical period with *Saving Private Ryan*, an intense, strikingly authentic epic which uses the bloody D-Day invasion as its backdrop.

Hollywood has rendered the pivotal Normandy battle before,

most notably in the 1962 all-star CinemaScope spectacular *The Longest Day* (see Wrap Shot, page 120), which earned Oscars for both black-and-white cinematography (by the team of Jean Bourgoin, Walter Wottitz, Henri Persin and Pierre Levent) and special effects (Robert MacDonald and Jacques Maumont). But few filmmakers have demonstrated Spielberg's skill with large-scale action and the mechanics of suspense, and the director maintains that his rendering of the Omaha Beach massacre is "as unflinching as *Schindler's List*" in its depiction of wartime horrors.

Spielberg recently took time out of his busy schedule to answer *AC*'s questions about his latest celluloid adventure.

American Cinematographer: **Why are you so drawn to the World War II era as a setting for your films?**

Steven Spielberg: I think that World War II is the most significant event of the last 100 years; the fate of the Baby Boomers and even Generation X was linked to the outcome. Beyond that, I've just always been interested in World War II. My earliest films, which I made when I was about 14 years old, were combat pictures that were set both on the ground and in the air. For years now, I've been looking for the right World War II story to shoot, and when Robert Rodat wrote *Saving Private Ryan,* I found it.

On the surface, World War II is a classic conflict between good and evil, but this picture addresses some philosophical issues which aren't quite so clear-cut. The soldiers who are sent out to rescue Private Ryan are conflicted and openly critical of their mission.

Spielberg: From an historical perspective, the Second World War seems pretty cut-and-dried, or black-and-white. But inside a war, and inside combat, it's technically chaotic and personally very contradictory. When we look back from the standpoint of history, we can say, 'Oh yeah, World War II clearly set the good and bad apart from one another.' But inside combat, the issue is never that clear. To the soldiers fighting the war, it can be very confusing.

What are some of your favorite war movies? Did those particular films affect your approach to *Private Ryan* either visually or dramatically?

Spielberg: In terms of features, the World War II pictures that inspired me the most were William Wellman's *Battleground* [1949], Sam Fuller's *The Steel Helmet* [1951] and Don Siegel's *Hell Is for Heroes* [1962]. I didn't really draw from those films aesthetically, but they made a big impression on me while I was growing up in Arizona and watching a lot of TV. I haven't studied World War II films, but I'm very familiar with them because they were a part of my formative years.

In truth, on *Private Ryan* I tried to take the opposite approach of nearly every one of my favorite World War II movies. Films that were made during the actual war years never really concerned themselves with realism, but more with extolling the virtues of winning and sacrificing ourselves upon the altar of freedom. Those were the themes of many World War II pictures, which also were designed to help sell war bonds. I love those movies, but I think Vietnam pushed people from my generation to tell the truth about war without glorifying it. As a result, I've taken a much harder approach to telling this particular story. From a visual perspective, I was much more influenced by various World War II documentaries — *Memphis Belle, Why We Fight,* John Ford's Midway movie and John Huston's film on the liberation of the Nazi death camps — than I was by any of Hollywood's representations of the war. I was also very inspired by [photographer] Robert Capa's documentary work, and the eight surviving stills he took during the assault on Omaha Beach.

Your right-hand man, Janusz Kaminski, told me that the two of you like to challenge each other artistically, and that your relationship sometimes takes on an air of friendly competition. Do you agree with that assessment?

Spielberg: I don't see our relationship as being competitive. We are collaborators and friends, and we give each other tremendous emotional support. Because we have so much mutual respect, neither of us wants to let the other down. We've developed our relationship over the course of four movies together, and we're about to do a fifth one, *Memoirs of a Geisha.* Janusz is the first brother I've ever had on a set; I feel closer to him than any other collaborator I've had in my career.

How would you compare your visual approach on *Private Ryan* to what you've done together on previous films? Do you consider this picture to be a departure?

Spielberg: The whole movie has a different style than anything I've done before. It's very hard and rough, and in the best sense, I think it's extraordinarily sloppy. But reality is sloppy — it's not the perfect dolly shot or crane move. We were attempting to put fear and chaos on film. If the lens got splattered with sand and blood, I didn't say, 'Oh my God, the shot's ruined, we have to do it over again' — we just used it in the picture. Our camera was affected in the same way that a combat cameraman's would be when an explosion or bullet hit happened nearby.

About 90 percent of *Private Ryan* was shot with handheld cameras. How did that strategy influence your role as director? Did it affect the amount of control you had over the images?

Spielberg: I still had a lot of control because I was watching everything on video monitors; I could always do something over

Opposite: Spielberg briefs his troops about their cinematic mission. "I think Vietnam pushed people from my generation to tell the truth about war without glorifying it," the director declares. "As a result, I've taken a much harder approach to telling this particular story."

Five-Star General

Above: The director puts star Tom Hanks through his paces during filming of the Omaha Beach assault. Right: Spielberg and cinematographer Janusz Kaminski plot their next move from the "sandy shingle." Says the director, "I would say that we drive each other in a healthy, natural way. I push Janusz to do his best, and he encourages me in the same way."

again if I didn't like it. I was also recording the takes so I could pore over the playbacks to see if things were working or not. On *Schindler's List* and *Amistad,* I had video assist, but no playback. Because we had so many physical effects working during the production of *Private Ryan,* every department needed to watch the playbacks to see if they were doing their jobs. On this film, I departed from my 'purist' mode and brought in modern technology.

I understand that you didn't storyboard any of the movie. That must have made things a bit challenging, given the film's elaborate battle scenes. How much improvisation were you able to do?

Spielberg: I had a very strong screenplay, and the actors and I were certainly following that as a blueprint. But in terms of my approach to the combat sequences, I was improvising all of them. I just went to war and did things the way I thought a combat cameraman would have. I had a very good advisor for the battle scenes: [retired Marine Corps Captain] Dale Dye. He served three tours of duty under fire in Vietnam, and he was wounded several times. In order to capture the realism of combat, I relied on Dale, as well as several World War II combat veterans who also served as consultants.

One thing that really helped me was that we shot every battle scene in continuity. For example, I started the Omaha Beach sequence in the Higgins boats, worked my way out of the 'murder holes,' moved on to the beach obstacles and the 'sandy shingle,' and finally proceeded up the Vierville draw.

How did you handle the dangers of the battle sequences, which involved explosions, gunfire squibs and other hazards?

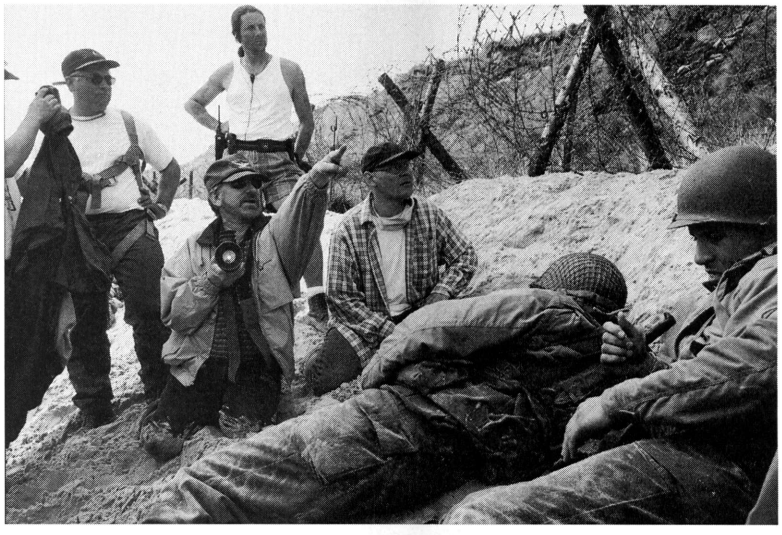
Spielberg: We had crack safety teams and set safety supervisors, and our pyrotechnical work was supervised by some of the best 'powder men' and women I've ever seen in the film business. We were slaves to their long-winded but necessary explanations of where the squibs and explosions were hidden, and we made completely certain that only stuntmen were positioned anywhere near an explosion. We had [approximately 750] members of the Irish Army helping us stage the retaking of Omaha Beach, and we kept them well away from the dangerous areas.

You shot the D-Day scenes at a beach location in Ireland. What kinds of benefits or drawbacks did you experience there?

Spielberg: I was a bit disappointed that the beach we used wasn't as broad as the real Omaha Beach in France. I tried to use certain wide-angle lenses to extend the length of the flats on the sandy beach before the soldiers reach the shingle. I used wider lenses for geography and tighter lenses for the compression of action.

We were very lucky with the weather, though. D-Day took place in very inclement conditions, and many of the soldiers who fought there were seasick before they even reached the beach. During the four weeks that we were shooting the Omaha Beach sequence, which comprises the first 25 minutes of the film, we had very rough seas and bad weather — it was overcast about 90 percent of the time. That was a miracle, because we were shooting at a time of year when there's normally bright weather and the tourists are flocking. We were handed a huge break.

How did you balance the large-scale action with the human drama of the characters? The camera



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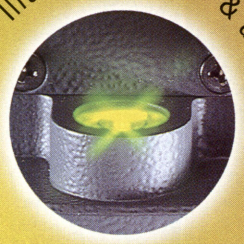

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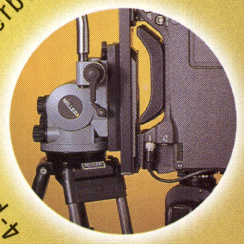

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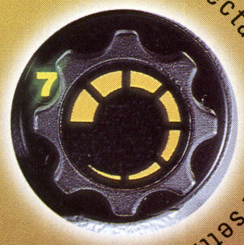

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basically stays with the soldiers during the entire picture, but you must have been constantly tempted to set up epic, God's-eye views of the battlefield.

Spielberg: I did a few of those, but not many. I tried to create a motivation for the God's-eye shots by having a character holding the high ground to justify the point of view. There were a couple of times when I went up in an unmotivated way in order to show more of the action, but the movie is pretty much shot from the frightened viewpoint of a 'dogface' who's hugging the sand and trying to avoid having his head blown off.

You used a variety of techniques — stripping the protective coatings from your lenses, flashing the film stock, applying the ENR process and desaturating the picture's colors — to give *Private Ryan* an air of absolute authenticity. How did those strategies come about?

Spielberg: To present war as 'up close and personal' as we possibly could, we really deglamorized the technology we were using. The images we got involved a combination of several elements — film stock, processing and a deconstruction of the slickness that you usually get with modern lenses. It was Janusz's idea to strip the lenses, flash the film and use ENR; it was my decision to desaturate the colors. I came up with that notion while watching the color 16mm Signal Corps footage that George Stevens had done during the invasion of France. I was very taken with the desaturated look of that film; I have a feeling it was shot on Ektachrome stock.

You also used 45- and 90-degree shutters instead of the usual 180-degree configuration.

Spielberg: Not all the time — we varied our approach. We used different shutters to create different realities, and we occasionally did speed changes in conjunction with shutter-degree changes. All of the special techniques we used were intended to make you feel as if you were right in the middle of combat, as opposed to watching it like an armchair civilian.

Why did you choose to shoot *Private Ryan* in the 1.85:1 format rather than a widescreen format?

Spielberg: To me, widescreen formats like CinemaScope were a Hollywood invention of the 1950s. I find widescreen to be an artificial aspect ratio, whereas 1.85 more closely approximates the way the human eye really sees, in the sense that we see as high to low as we do from side to side. If I had to make a choice, I'd rather see from high to low. I think the most human perspective is [the range] from 1.66:1 to 1.85:1. The slickest format for

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DP Salvatore Totino has shot videos for U2, Live and Sound Garden. He has shot commercials for Jack Daniels, Nike, Jaguar and H.I.S. jeans. He won a Clio for that last one.

"I asked them: Would you take the shutter out of an ARRI 3 and lend me that camera to shoot a test, all with no charge? They answered: Sure."

"After that test, we shot a U2 video with their Over/Under, using one of the cameras with a shutter and one without," says Salvatore Totino

"With no shutter, the image would obviously be streaked and blurred," says DP Sal Totino. "But *how* streaked? I wanted to see just what it would look like."

"So I called Clairmont. Not only did they take a shutter out for me — they even took an *interest* in the idea. They were curious, too. And the streaking effect was very interesting. On the U2 video, the director dissolved, in post, between the images from the shuttered camera and the no-shutter camera."

"In New York, where I started out, the rental places were small. I knew them and I knew the people. If I needed something and the tech was busy, I'd sometimes go back and grab it off the shelf myself. But when I began to work on jobs that meant flying out to shoot in California, things were different."

Not serviced between jobs

"Back then, I was a First AC. I had no say in where the gear came from and I didn't know anybody. One of the first big L.A. rental places I prepped at regularly made me wish I were back in New York. If we ordered a 300mm lens at that L.A. place, we would find they were out of them on prep day. Then one would come in from a job — and half the time they would hand that lens to me without servicing it."

"Since 1994, I've been a DP. So now I can almost always say where the equipment is to be rented; and I've come to *rely* on Clairmont the way I rely on my crew. I recently shot a commercial with motorcycle stunts, using five of their cameras. That was in Delano, about 100 miles from L.A. We had extra gear coming up from L.A. every day. We didn't have to prep any of it — Clairmont did that."

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theaters is 2.35:1. I've chosen 1.85:1 for my last four pictures because they were intended to be more lifelike.

Your shooting ratio on this film was approximately 4 to 1, which is quite low. Was that mainly due to the fact that you had a lot of logistically complex setups that could only be done a few times?

Spielberg: Actually, some of the more complicated setups had a higher ratio, but our average for the film was about 4 to 1. I had great actors, an amazing effects crew and terrific stunt performers, so quite often I was able to get things exactly the way I'd envisioned them in the first three or four takes. I rarely walked away from a scene until I got what I wanted, and I'd say that I got what I wanted from those complex setups about 80 percent of the time.

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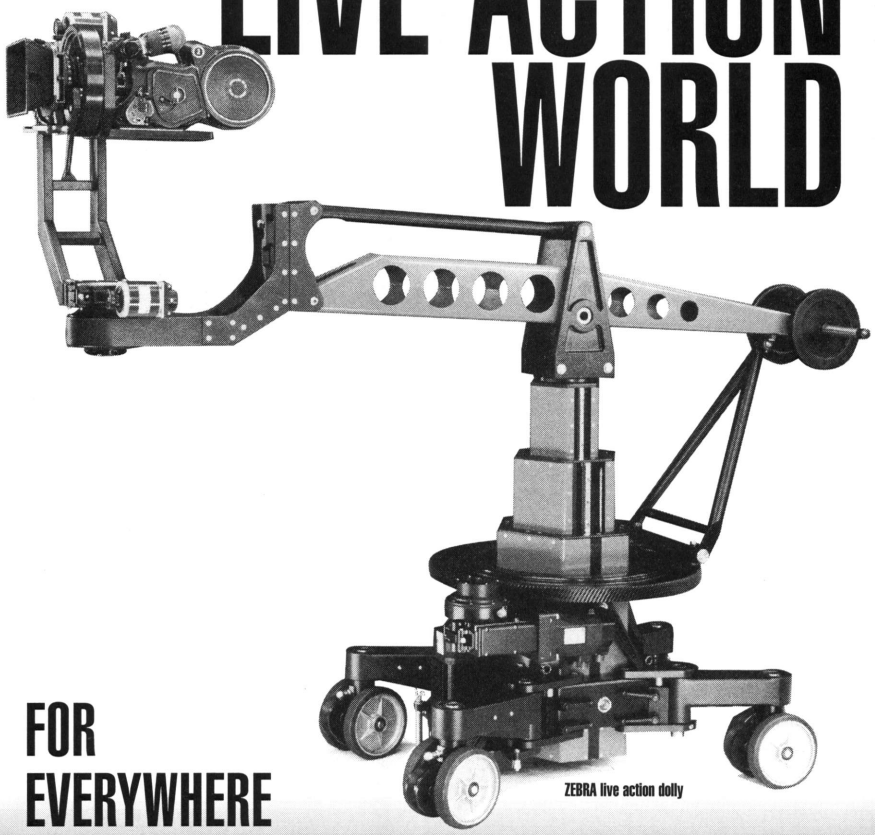

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Did you face any particular challenges during the editing?

Spielberg: Mike Kahn [who earned Academy Awards for his work on *Raiders of the Lost Ark* and *Schindler's List*] was just wonderful in the editing room. His rhythms are the best in the world, and he tries to throw the audience off of their expectations. When you expect something to be sort of slow and clear in terms of a scene's geography, you might instead get lost; at other times, you might feel as if you're lost when you suddenly realize where you are and how you can get out of the jam. In World War II, the enemy wasn't working from the same script as the Allies; the two sides had their own screenplays, and they were always improvising. I tried to be as improvisational in my production of a war film as wars are when they're actually fought. We didn't want to telegraph anything, and we also wanted viewers to be just as surprised as the combat G.I.'s were when the enemy threw something new at them. I think some of that is the product of deft editing.

In addition to the Omaha Beach sequence, *Private Ryan* features a climactic battle scene in a fictional French village called Ramelle.

Spielberg: That was a very complicated sequence which took weeks and weeks to plan out on paper. We didn't storyboard it, but we wrote it all out. Dale Dye got involved, and he really screwed my head on straight by reminding me not to let the audience down after giving them such a visceral experience in the Omaha Beach scenes. We had to properly bookend the picture, and this time more emotionally. Dale helped me a great deal by showing me the firepower of the weapons that the Germans were using, or what the effect of an artillery round would look like on the ground — and not by Hollywood standards, which is usually larger than reality. Every time

I wanted a large fireball or explosion, Dale would ask me what round was fired to create that effect, and he would invariably say, 'Go half that size, they were never that big.' He was a really good person to have around, because he was able to scale the reality down to what he was accustomed to in Vietnam — just as the World War II veterans we talked to or had on the set could tell us what they were accustomed to.

Speaking of realism, it's been widely reported that you put your key actors through a week of boot-camp hell during preproduction. What led to that decision on your part?

Spielberg: Dale Dye and Tom Hanks talked me into it. After I hired him, Dale told me he'd done that on other pictures, including *Forrest Gump*. To prepare for *Gump*'s few short scenes in Vietnam, Tom had gone through Dale's boot camp. In retrospect, I think it was a good thing to do. The actors arrived both willing and able to win a war.

You're known for working very rapidly during production. Was there any particular advantage to that kind of pace on this show? Did it lend extra intensity to the shoot?

Spielberg: Absolutely. We worked fast but carefully, and we wound up a few days ahead of schedule on this show. A war is fought fast, and I really wanted to keep all of the actors off-balance. I didn't want them to be able to read 75 pages of a novel in their trailer before they were called back for the second setup of the morning. I wanted to work fast enough so that they always felt as if they were in combat, they always felt as if they were under fire, they always felt as if they were in jeopardy. In order to keep the actors so involved in the story, I had to keep them on the set, which meant shooting the film even faster than I normally do. War doesn't give you a break, and I didn't want the production of *Private Ryan* to give them one either. ■

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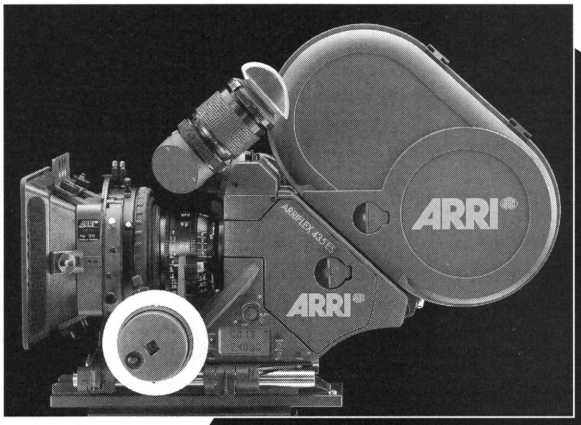

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Ringside Riddle

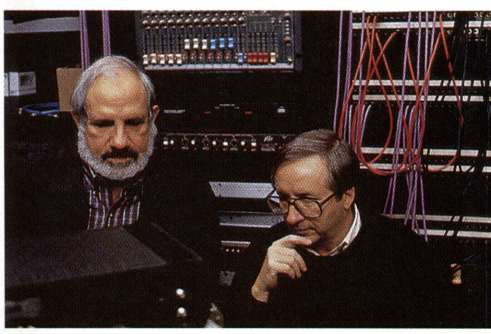
Burum and DePalma roll the dice with *Snake Eyes*, an ambitious thriller which examines a murder through ever-shifting perspectives.

by Chris Pizzello

Photography by Attila Dory

In their six previous collaborations, director Brian DePalma and cinematographer Stephen H. Burum, ASC, have applied their seductive brand of pure cinema to a variety of vivid milieus: flamboyant gangster Guignol (*The Untouchables, Carlito's Way*); Hitchcock-flavored suspense (*Body Double, Raising Cain*); gleaming, high-tech skullduggery (*Mission: Impossible*); and the infernal horror of Vietnam (*Casualties of War*). The settings, characters and eras span the cinematic spectrum, but ultimately the films are bound together by the same thematic thread. "Brian's films always have a strong moral point of view," Burum observes. "If a character does something wrong, there are always severe consequences. In *Body Double*, for instance, you have the detective saying to the main character, 'If you hadn't been spying on that girl, she wouldn't have died.' Once the [protagonist] is chastised, the only way he can redeem himself is to find the murderer. In every one of Brian's pictures, there is a moral speech or lesson. If you don't do the right thing, you're going to get yourself into a lot of trouble!"

In their latest film, the suspense thriller *Snake Eyes*, DePalma and Burum have added a new twist to the ever-present moral context: the slippery nature of the truth itself, a theme that harks back to the Japanese classic *Rashomon*. The story picks up as Atlantic City police detective Rick Santoro (Nicolas Cage) joins his old friend Kevin Dunne (Gary Sinise), a highly-placed Department of Defense staffer working with the U.S. Secretary of Defense, at a heavyweight boxing match. When Dunne's back is turned, the Secretary is assassinated and 14,000 fight fans become



witnesses, suspects and possible accomplices. Santoro joins forces with Dunne to begin the murder investigation, and the arena is sealed. The events leading up to the assassination are then replayed through the memories of three key witnesses: a mysterious woman in the crowd (Carla Gugino), the heavyweight champ who lost the fight (Stan Shaw) and Dunne himself. As Rick weaves together the dangling strands of truth, he uncovers an intricate conspiracy which forces him to confront his own questionable past.

Burum says that his many years of working with DePalma have fostered an easy creative telepathy. The two understand each other's mindsets and abilities so well that they don't need to indulge in the customary preproduction "feeling-out" period between a director and cinematographer. "[Our collaboration] is mostly unspoken," the cinematographer comments. "Brian will tell me what he wants to do at the first stage of the picture, and it's always very simple. For *Snake Eyes,* he just said, 'Noir, very noir,' and then 'We're going to do this very fast.' We did end up finishing well ahead of schedule, shooting from May to October of '97. Brian's storyboards are usually a lot more expansive than how we really shoot them. When he gets to the set, he'll see that he doesn't really need a certain element, and he'll simplify the scene and make it stronger. Sometimes we'll schedule three days for something, and Brian will say, 'I think we can do it in a day and a half.'"

Burum's familiarity with DePalma's filmmaking style is so thorough that he is sometimes able to foresee the director's *modus operandi,* even when it's absent from the shot list. The cameraman offers an example: "In every one of Brian's movies, there is what I call a 'creeper' sequence, where the audience watches a character being pursued. When we were doing *Casualties of War* in Thailand, I said to Brian, 'I'll bet you're going to do a night sequence in this camp with [actor] Michael J. Fox.' He said, 'Steve, it's not in the script!' And I replied, 'Okay, but I'll be ready to do one!' I told the electricians and grips to prepare towers for night shooting in the camp, and they all thought I was nuts. Sure enough, three weeks later Brian came up with his 'creeper' sequence, in which Michael's character goes to the latrine and one of his rivals sets a bomb underneath the latrine. Everyone turned to me and asked, 'How did you know?' Well, that's just how Brian thinks.

"It's like Jack Benny telling a joke as opposed to Johnny Carson. They can tell the same joke, but the way they tell it is what makes the difference. I guess it's what people call *style.* When people see a Brian DePalma movie, that's what they expect."

For Burum, whose long list of credits includes such acclaimed and visually daring films as *Rumble Fish, The Outsiders, Hoffa, The War of the Roses,* and *The Shadow,* the key to his successful collaboration with DePalma is clear, simple communication. "Brian is very specific about what he wants," the veteran cinematographer says. "He has the film figured out in his head beforehand, and it's just a matter of executing what he wants to do. Psychologically, that's very helpful. Sometimes you work with directors who don't know what they want to do, and as a result you either underprepare or overprepare. Brian is going to say exactly what he wants — there's no '*Well, I don't know...*' with him. The tough part is that he does things that are so technically demanding that it takes a long time to execute them."

Snake Eyes was no exception, with DePalma and Burum continually stretching the creative possibilities afforded by the film's primary location, the Montreal Forum (doubling for the fictional Atlantic City Arena), a pro hockey shrine that served for years as the home of the perennial Stanley Cup champions the Canadiens. No longer in use as it awaits the go-ahead for development into a gigantic entertainment complex, the legendary 75-year-old arena was given a monumental makeover by production designer Anne Pritchard.

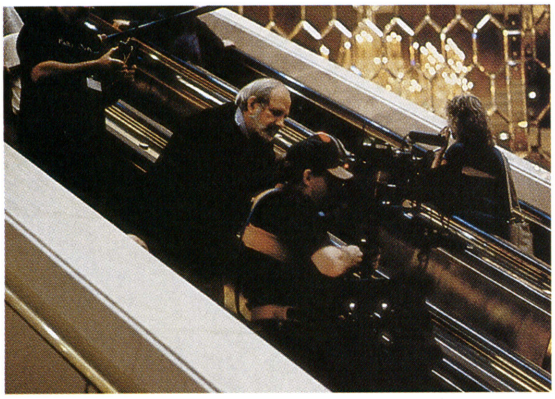
In transforming the aging Forum into an Atlantic City boxing arena, Pritchard had a new concrete floor poured and thousands of seats installed, since the originals were auctioned to die-hard hockey fans when the doors officially closed. Since the production couldn't afford to fill the entire arena with seats, the opposing ends of the arena were masked off with huge missile-launcher props — the trademark of munitions tycoon and fictional arena owner Gilbert Powell — and a giant American flag.

Burum points out that even with the huge displays and thousands of extras, he had to use all of his illusory powers to make the arena seem like a full house in the finished film. "The building in that configuration could hold maybe 10,000 people," he notes, "but it was too cost-prohibitive to have that number of extras every day. And because of the [roving] way Brian likes to shoot, we had to be able to see 360 degrees all the time — we couldn't just do a matting operation. It simply wasn't practical.

"We had a certain number of extras, somewhere between 1,300 and 2,000, and they filled up most of the seats we installed. What I came up with was that the areas that weren't filled had to go black — and I mean *black.* We couldn't even have a hint of anything in those spots, but the new Kodak Vision 500T 5279 film we were using has latitude that just goes on forever. Usually everybody loves that aspect of the film, but in this case it was a big problem. You want to be able to see and feel that

Opposite, top: Detective Rick Santoro (Nicholas Cage) takes aim. *Snake Eyes* marks the seventh collaboration between director Brian DePalma and cinematographer Steve Burum (bottom).

Ringside Riddle



Above: DePalma trails the Steadicam while moving along an escalator. Right: Military staffer Kevin Dunne (Gary Sinise) and Santoro join forces to solve an uncommon crime. Careful lighting and staging in the revamped sports arena location allowed the filmmakers to suggest a bigger crowd than their budget could afford.

there's an audience, but you don't want to know that there are great big portions of people missing. Usually when you light a normal audience, you backlight them so that they have a little rim. But in places where you don't have that rim, the absence of people will be pretty obvious! I therefore came up with a lighting plan called 'leopard spots.' I used white pools of light around the audience, so that you would see a group of people and then a dark portion [where there were no extras].

Burum used his understanding of the new Kodak stocks to placate nervous production members who fretted that they could still see detail in the dark areas of the Forum. "With the new stocks, it helps to be at a higher light level," he explains. "If I had been down at 25 or 40 footcandles, you would still be able to see detail in the dark areas. But with a greater difference between middle gray and black tones, I was able to bury the black. When everybody saw the dailies from the first day in the arena, they were greatly relieved."

Since the film frequently takes on the subjective viewpoints of different characters inside the arena, Burum felt it was important to use his lighting to delineate specific areas of the Forum and eliminate any potential audience confusion. "When you watch old Westerns, you'll see a cowboy ride past a tree, across a bridge, and then past a water tower," he says. "Then when you see another character ride past the same tree or bridge, you know where the characters are and you understand the film's geography. You have to establish this sense very quickly for the audience so that when you cut to somebody's point of view, they'll immediately think, 'I've seen this before, I know where this is.'"

The arena's aisles, where the camera frequently follows characters, were a particularly important aspect of Burum's lighting design. "When you have aisles that go up the four corners of the arena, down the middle and even up into the exit tunnels and the bleachers, it becomes very, very complicated," Burum describes. "I knew that if I lit those areas from above or from the side, light would spill onto areas in the crowd that I wanted to go black, and I didn't want to have to hang lights and use a lot of cutters. To avoid that, I had the art department build about 300 little practical lights with quartz globes inside of them and a dark blue gel on the end; we placed them along the aisles of each row. We put a little piece of frosted glass on top of them, as well as little louvers aimed upwards so that the light wouldn't spill all over the place. Anyone who walked up and down an aisle would be lit by them. They also lit the stairways that went up into the bleachers, so they became a design element in the movie."

The next visual elements that needed to be highlighted were the tunnel entrances to the arena, above which were the customary red "Exit" signs. "I used gelled red light for the area in front of all the tunnels to simulate the look of the 'Exit' signs," Burum explains. "That way, the audience would instantly know where the entrances were, as well as the crowd members and the walkways. The whole design had a patriotic theme in keeping with the presence of the Secretary of Defense — red entrances, blue aisle lights and white pools of light over the audience. The pools of light over the audience and the gelled red lights for each of the entrances were provided by Par 64 cans. We could have used any kind of light we wanted — Fresnels, or 5Ks and 10Ks snooted down. But a 10K is considerably more expensive to rent than a Par 64 can. Also, in some instances, when you have a lamp pointed straight down and turned on on for 12 hours a day, the socket starts to burn out. There are a lot of things you have to consider."

All of these lights were hung from the Forum ceiling on a series of triangular trusses suspended with chain motors. "If we had any trouble with those lights or if one of them caught on fire, we could get them down immediately," Burum points out. "Or if a cable blew out, we

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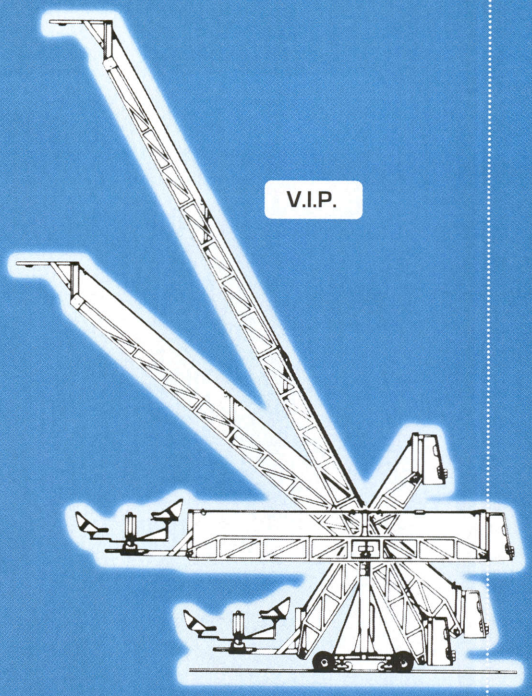

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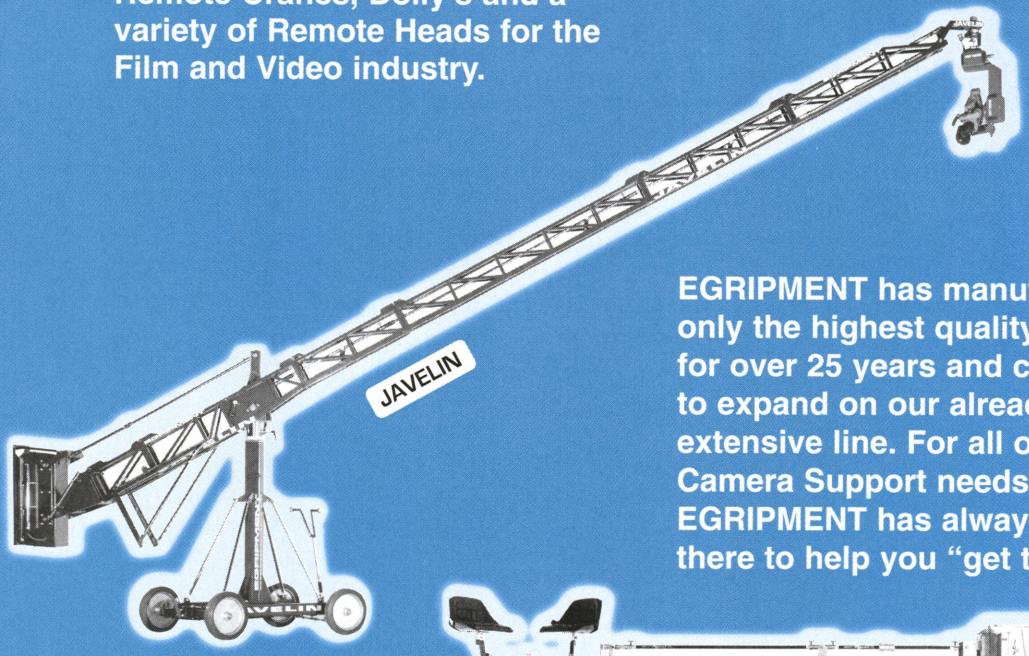

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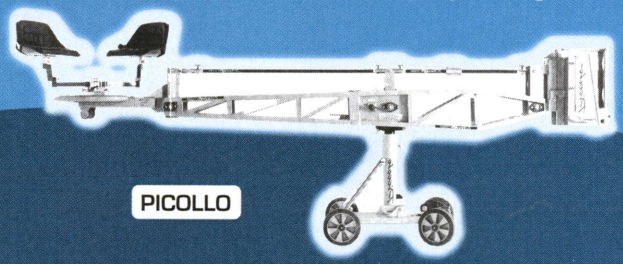

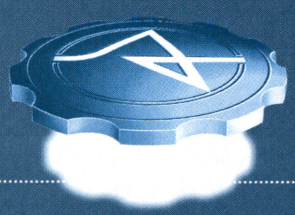

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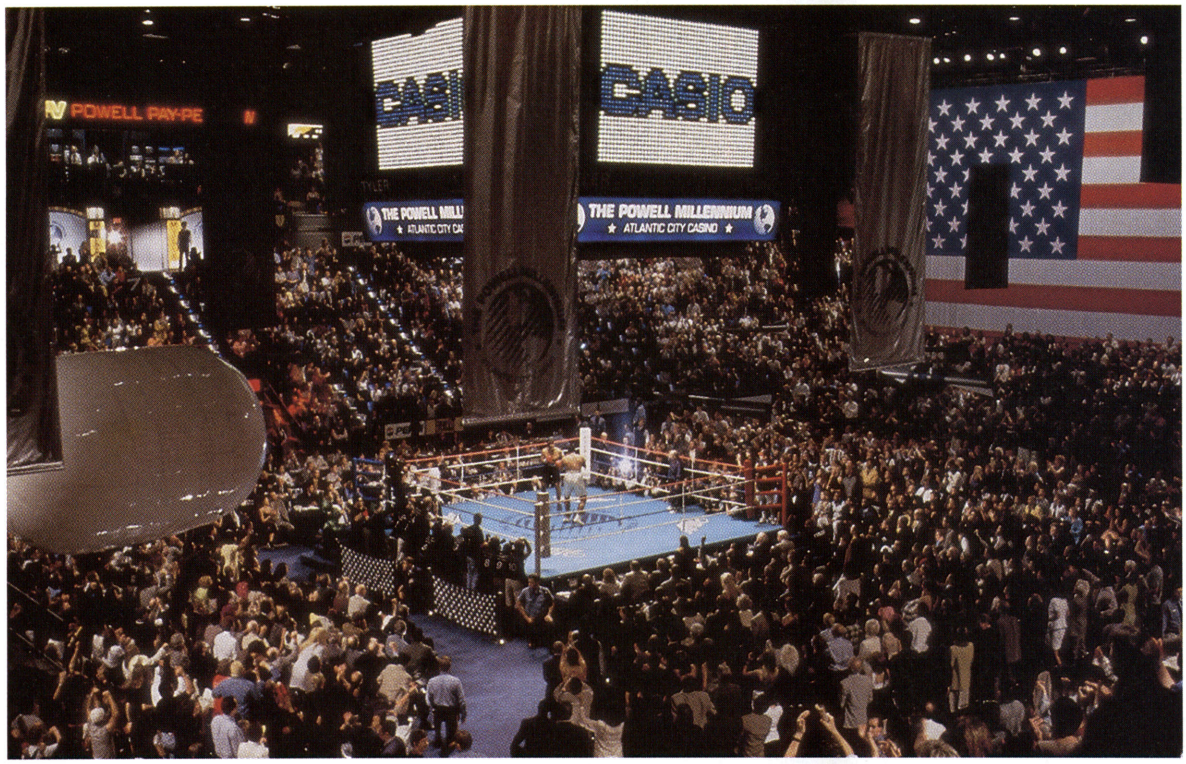


Right: Multiple overhead grids suspended on chain motors allowed Burum flexibility while shooing in the cavernous arena, while the reactivated central scoreboard offered its own illumination. Opposite: Shooting in the ring. While researching the film at a boxing event in Atlantic City, Burum found the traditional "smoke-filled" auditorium to be an out-of-date cliché.

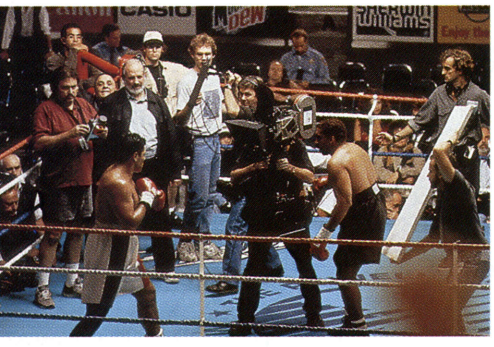
could replace it very quickly."

While shooting the film's boxing scenes, Burum was aided by a holdover from the arena's hockey days: a huge trapezoidal scoreboard which still hung over the center of the arena. "In the area beneath the scoreboard, we were able to wire together another series of triangular aluminum trusses with Par 64 cans built into them," he explains. "We were dealing with a boxing match, which is usually lit like a rock 'n' roll concert. I used the light not only for the ring but for the first three rows of seats, where the V.I.P. characters were sitting and congregating. I just let the light fall off naturally from there. We also had six to eight spotlights on parallels way up in the rafters, so that we could follow the boxers as they approached the ring."

Burum, DePalma and other members of the production team attended an actual Atlantic City boxing match to get a feel for the atmosphere of a contemporary bout. "We mostly learned how people are arranged around the ring," Burum describes. "There are specific places for the trainers, the handlers, the ring girl and the press photographers. In our film, we had some flashes going off around the audience to keep the hysteria going, but the press photographers at real boxing matches don't really use strobes much anymore. You also expect a boxing arena to be filled with smoke, with big shafts of light coming down. But that's not contemporary. First of all, very few people smoke, and secondly, the air-conditioning systems are so good in most arenas that you wouldn't really see smoke anyway — it would be sucked right out! We put in our own air-conditioning system at the Forum. The 'smoke-filled arena' is kind of a dated image."

After the Secretary is assassinated and pandemonium breaks loose, Burum alters his lighting scheme to approximate what the Forum would look like with the house lights switched on. "We hung about 25 rock 'n' roll trusses around the arena from the ceiling," he explains. "Again, we had our choice of a lot of lights — 20Ks would have been fabulous. But then again, you have the problem of the heat going up and the bulb burning out many hours before its time. Also, a 20K globe costs a lot of money. Instead, we used about 60 nine-light Maxi-Brutes with barn doors on them. We then fabricated tin pieces for the tops and bottoms of the lights to make them look like regular fixtures in the arena. Doing that also helped to funnel the light down."

Fans of DePalma's fluid, voyeuristic storytelling style will get their fix early on, as *Snake Eyes* opens with a technically demanding, seemingly edit-free 20-minute Steadicam sequence, shot by renowned operator Larry McConkey, which follows Santoro (Cage) through the Forum. "Of course, you only have 500 feet in the magazine," notes Burum, "so when it got to the end of the roll, we would either have a wall or a person wipe in front of the camera, or we have the camera do a swish-pan. We used those moments as our opportunities to cut. It's an objective shot with a 50mm Panavision lens, and it introduces all of the major characters in the movie. Santoro meets Dunne,



and you learn a little about both of them. Santoro shakes down a drug dealer and you learn that he's not the most honest policeman in the world. He talks to his wife on his cell phone, and then he flirts with a girl. The sequence travels all over the place, so all of those areas had to be prelit. The camera goes just about everywhere except for the hallways on the side of the pay-per-view booth and the lobby."

In keeping with his color-coded strategy for the main floor of the Forum, Burum paid similar attention to detail in handling the arena's auxiliary areas. "The access hallway entrances to the arena couldn't be too bright, because Costello [Carla Gugino] sees someone with a gun there, and you can't have someone walking down the middle of a brightly lit hallway with a rifle!" Burum says. "So once again, we used pools of light. Even though you can plainly see a person with a rifle walking down the hallway, you have the idea that there's some sort of cover. To create the pools of light, we used hundreds of custom-made fluorescent fixtures and placed them in such a way that they made a definite light-and-dark pattern. They had Kino Flo 3200°K tubes fitted with high-frequency ballasts and commercial grids that focused the light and increased it by a stop. These lights had to be seen in the frame, so we couldn't use regular Kino Flo fixtures. They also had to be powerful, because often we had to move in one shot from the arena, which was already lit at a high level,

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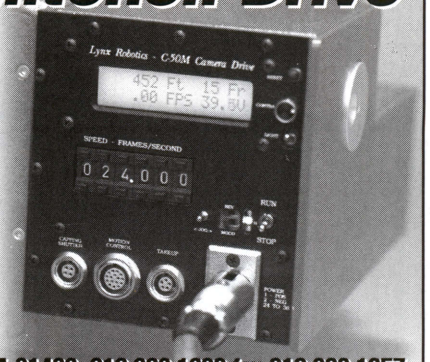

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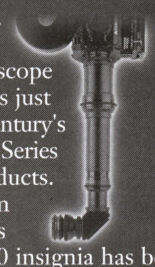

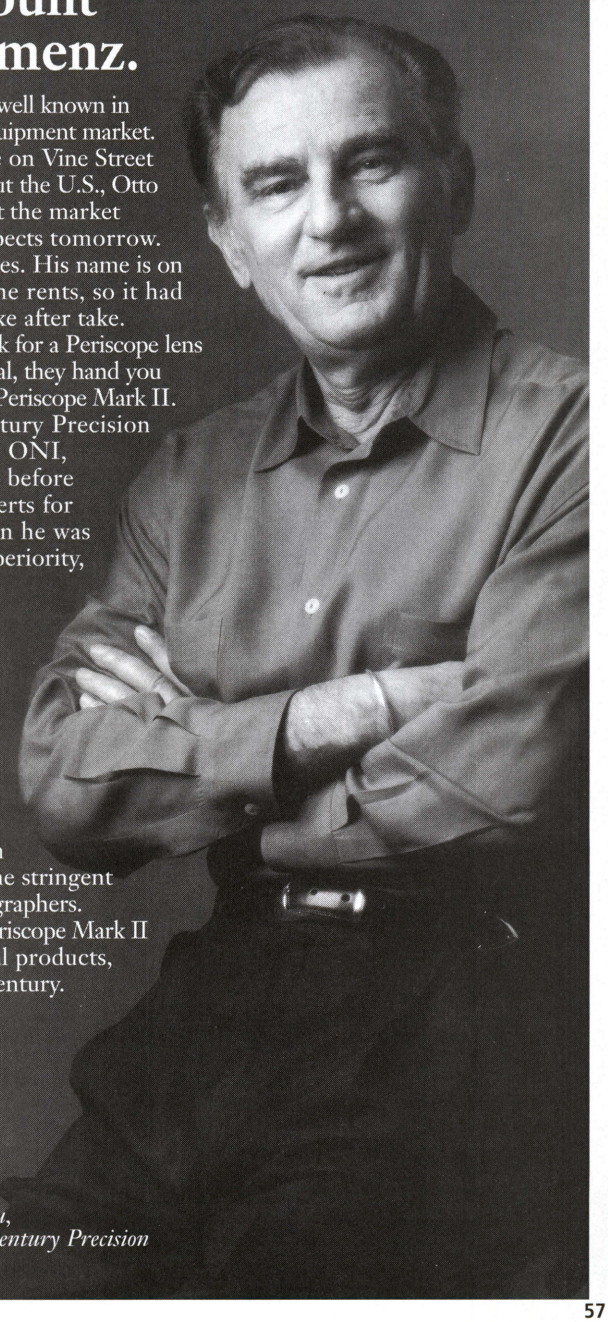

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Ringside Riddle

into the hallway.

"We also had three stairwells by the boxers' dressing rooms that needed to be lit, as well as another three that went up to the television pay-per-view booth. We generally lit those areas with four to six 1K nook lights bounced into 4' by 4' and 4' by 8' beadboards. We tried to make them look as natural as possible, but we also had the walls for each staircase painted different colors so that the audience would know exactly which one they were on — that was the most important thing."

Since *Snake Eyes* relies heavily on not only the subjective viewpoint of the Santoro character but also his reactions, Burum paid particular attention to Cage's close-ups as his character begins to piece the witnesses' puzzle-like fragments of testimony together. "At the start of the film, Nic's character is a handsome young guy on the move," Burum describes. "He's very attractive to women, he's in control of everything because he's a cop, he grew up in Atlantic City and he's got the whole town wired. So [in my lighting], he's made to look brash and open, very much in control. In one scene, Nic questions Carla's character in a stairwell, and I wanted to foreshadow that there might be a romance between them. I used 'butterfly' lighting on him, doing some nice modeling on the side of his face, using 2K zips with snoots to make him look as handsome and appealing as possible.

"As the movie goes on and things start to get tough for him, we shadow his face more and hide his eyes a little bit. At the end of the picture, he's done the right thing, but because of his other transgressions he's had to pay for it. You see that price in his face — he's not lit to be quite so handsome or powerful. We realize that this guy is a bit more human, but there is also hope at the end of the rainbow for him."

Burum stayed with the high-speed Vision 500T 5279 stock throughout the entire shoot. "I usually only use one or two emulsions on a film anyway," he says. "Kodak has gotten the grain structure, the contrast and the color of their films so close to each other that it really takes someone who's an expert to be able to tell the difference. It's designed so that if you shoot in the sunshine with the 45, then go right to a scene in the middle of the night with the high-speed film, you're not going to see a big change. If you want to make a film look different [in various scenes], I think you're better off doing it through some sort of development, printing or filtration scheme."

Despite the intricate logistics of a location shoot like *Snake Eyes*, as well as the technical demands of working with an ambitious visual stylist like DePalma, Burum offers a reminder that a cinematographer's artistic instinct should never be supplanted by mere technical expertise. "An 11-year-old child could learn the mechanical craft of cinematography," he maintains. "The difference between cinematographers who do great work and those who just do okay work is some gift you have, some sense of taste. I think you're always frustrated when you're doing it, because you have this idea in your head and you can't quite get there, even though everyone else says that what you're doing is great. You're always dissatisfied because you want more from the cinematography than you're capable of giving. You can look at [fellow ASC member] Connie Hall's films and say, 'This is just fabulous, I could never approach that…' But Connie Hall is tearing himself apart! Cinematography isn't easy for anybody, and the more you do, the harder it gets." ■

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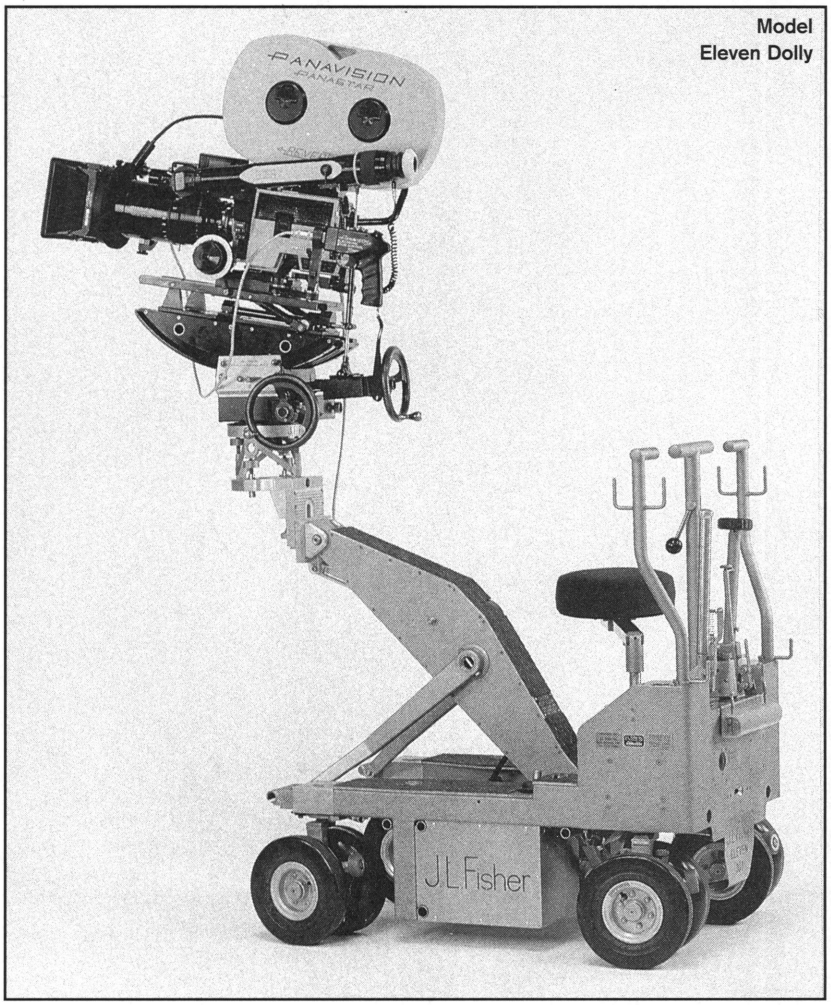

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Gothic Goddess

In stirring up a bubbling cauldron of otherworldly images, Canadian music video director Floria Sigismondi has helped to define the industry's cutting edge.

by Mark Dillon

Photography by Floria Sigismondi and Julie Swanson

Broaching the nightmare world of music video maven Floria Sigismondi is somewhat akin to visiting a burlesque sideshow replete with all manner of freakery: bald, androgynous, mannequin-like specters rub shoulders with saggy-fleshed ghosts and two-headed ogres; human figures are imprisoned in cars, watery coffins and transparent cubes; an eyeball floats in a coffee cup; black angels perform a grotesque ballet; minions revel as they are adorned with sadomasochistic orthodontics and fetishistic leg braces.

Though somber and sometimes stomach-churning, the vivid visions of the award-winning Canadian director have lured in such varied recording artists as David Bowie, Marilyn Manson, Tricky and Led Zeppelin's Jimmy Page and Robert Plant. Her baroque style may best be described as a marriage of *The Bride of Frankenstein* and Italian auteur Federico Fellini at his least inhibited. In Sigismondi's own words, the bizarre characters who populate her work "are theater-based, very much like how Fellini

uses characters symbolically. If there's a theme or something specific he wants to say, he does it either with dance, motion or a costume — it's like surreal performance."

The deep influence of Greek mythology and Italian theater on Sigismondi's work can be traced to her origins in Pescara, Italy, where she was born to opera-singing parents (and named after a character in the Puccini opera *Tosca* who slays the Vatican police chief with a dagger). When Floria was two years old, the Sigismondi family (including sister Antonella, a sculptress) relocated to the Canadian steel city of Hamilton, Ontario. The video artist credits her parents with fostering her artistic aspirations, noting, "They've been very nurturing with the theater and really encouraging in the arts in general. I remember going to every single one of my parents' practices. Those operas are all tragedies, they're all passionate. It's all about drama." With a laugh, she adds, "Just being Italian is all about drama!"

In her early years, Sigismondi became obsessed with drawing and painting, which she pursued in her free time while attending an all-girl Catholic school. Later, after graduating from high school, she moved 40 miles northeast to Toronto to study painting and illustration at the Ontario College of Art and Design (OCA). Though she retained her painterly sensibility, Sigismondi began veering more toward photography. "I was never obsessed with the technical side of photography, although I learned it well and used it to achieve certain things," she elaborates. "I like to make things more surreal, more like the expressionist painters. I wasn't using the photograph to document reality."

After completing her studies at OCA, Sigismondi landed her first professional assignment: a layout for the eponymous magazine published by the nationwide newspaper *The Globe and Mail*, for which she earned

Opposite page: Italian-Canadian director Floria Sigismondi. Left: Marilyn Manson (right) and a macabre minion cut ghoulish figures in the music video "Tourniquet."

Gothic Goddess

Right: A woman languishes within a cramped, clear cube in a public service announcement designed by Sigismondi for the Lupus Foundation. Lower right: The director and her longtime cinematographer, Chris Soos, set up a shot

a National Magazine Award at the age of 24. She soon established a thriving career that included fashion shoots, publicity stills for Canadian recording artists such as Jane Siberry and I Mother Earth, and advertisements for Converse and Coca-Cola.

Although she made a decent living from her still photography, Sigismondi soon began to find the process artistically stifling. She explains, "Sometimes fashion photography is obsessed with the stitching and the details of clothing — it was too much about the product for me to be able to push things and bring out a feeling or mood that appealed to me. Painting was more like that for me, and although I went to school to be an illustrator, I couldn't give my paintings away."

Fortunately, she was eventually approached by Don Allan, then-owner of Revolver Films (a subsidiary of the Toronto-based Partners Film Company), who was impressed enough with Sigismondi's stills to give her the opportunity to direct a music video. This career change would finally satisfy her need for creative autonomy.

Although Sigismondi lacks any formal film training, the transition from still to motion photography proved to be smooth, particularly since her imagery has always had a cinematic quality. "My shoots consisted of more than just one image," she reminisces. "It would be five or six images that would say something by the end of it. And I wasn't rigid — I didn't use a tripod. I was always moving around the model and doing 360-degree [setups], positioning the lights so I could shoot from many different angles. Those experiences helped me to understand movement, and my photography helped me to understand composition, camera, lighting, and working with talent."

Sigismondi soon amassed a portfolio of videos for Canadian bands such as Pure, Victor, The Tea Party and 13 Engines. Quite quickly, she "fell in love with the medium, since I could express myself more in terms of moods." Not every musical act, however, meshed with her uncanny aesthetic. "I've done videos for some bands where I knew what I really wanted to do, but the band didn't want to go there, or weren't able to pull it off," she laments.

In terms of conjuring up visual concepts, Sigismondi has learned that clever ideas are more likely to occur when she has an affinity for the song in question. When this connection is made, she listens to a given track numerous times. "The project might arrive at a time when I already have little images in mind, like pieces in a puzzle," she offers. "This is when I'm really in sync with a project. If I really love the music, it melds with these images, and I can take my ideas further because they really go with the song. It's like experiencing synchronicity — I call it

both my parents are artists.

growing up in hong kong, we'd get these typhoon warnings and be trapped in our apartment for days, so we'd pass the time painting and drawing.

one time a typhoon hit and our windows shattered, and we took our oil paintings and covered the windows with them to prevent the rain from coming in.

it was this amazing scene with all these different paintings where our windows used to be.

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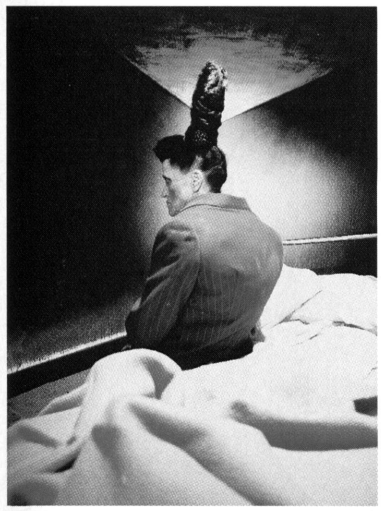
Gothic Goddess

being 'plugged in.' When you're plugged in, images appear."

A video Sigismondi shot for the Toronto-based heavy metal band Harem Scarem — entitled "Blue" — was a key project during her formative years. This stylized spot signaled her first attempt at costuming the musicians and lending the entire piece a unified "look." Sigismondi drew inspiration from Robert Wiene's classic 1919 film *The Cabinet of Dr. Caligari*, in which a fairground showman uses a somnambulist to commit murder (a tale which, it turns out, may be the mere fantasy of an institutionalized lunatic).

In approximating the style of this German expressionist benchmark, Sigismondi teamed for the first time with director of photography Chris Soos. The cinematographer could have simulated the look of the silent-era picture in postproduction, but instead opted to create the ambiance in-camera. Soos suggested shooting on high-contrast soundtrack film stock rather than traditional production emulsions. "You can run sound stock through a camera, but it has no latitude whatsoever," the cameraman explains. "It's orthochromatic, blue-sensitive, and has a low ASA — you have to use very punchy, hard lighting. Basically, you're simulating the circumstances that filmmakers had to deal with while shooting silent movies. [With sound stock] your latitude is maybe three-quarters of a stop over and under, and a slight deviation in exposure means that you'll either get nothing on the negative, or something that's totally washed out. I did gamble, but that choice enabled us to come up with a unique look that set us apart."



A curiously coiffured character from the David Bowie video "Dead Man Walking," which was inspired by the artistry of British painter Francis Bacon.

Vocalist Martine sports a crown of lizards in "She Makes Me Wanna Die," a spot Sigismondi shot for British trip-hop artist Tricky.

Sigismondi was so thrilled with the finished piece that she has chosen to collaborate with Soos on nearly every video and commercial she has directed since. This past March, Soos received a Canadian Society of Cinematographers Award for his photography on the Sigismondi-directed Tricky video "She Makes Me Want to Die." In 1997, the cameraman earned the same CSC honor for Marilyn Manson's "The Beautiful People," another of the pair's collaborations.

Many of the experimental techniques the duo used on their early projects have cropped up in more recent, bigger-budget work such as "Little Wonder," a music video in which veteran British rocker

David Bowie struts about in an undercranked, *Caligari*-like manner. Crediting Soos for his creative and technical contributions to her projects, the director says, "We have a really great relationship. He's always thinking of new ways of doing things and he's always really excited. I love surrounding myself with people who are really excited about their work."

To maintain a cache of novel concepts, Sigismondi is adamant about seeking visual cues from art forms other than music videos. "When a certain medium influences itself, it just becomes a dragon chasing its tail — it doesn't generate anything new," she explains. "Whereas if you are influenced by fine art, photography or music — something outside of what you're actually doing — you can bring in new things."

One of Sigismondi's primary influences is the work of noted photographer Joel-Peter Witkin, whose stills feature freakish characters and an irreverence for religion and art history. She has also drawn inspiration from the paintings of Francis Bacon, whose canvasses are renowned for gore, biblical allusions and the recurring theme of psychological incarceration. Hints of Bacon's style are apparent in her David Bowie video "Dead Man Walking," a piece notable for its angular sets, brightly tinted palette of green, blue, red and yellow, and the shrouding of the chameleon-like rocker in a face stocking.

It was Sigismondi's collaboration with Marilyn Manson on "The Beautiful People" video that brought her international recognition. Though the shock-rocker's music is definitely an acquired taste, the director found the singer to be a kindred spirit. "Manson and I connected from the very first time we met," she says. "We liked a lot of the same things. When I meet somebody that I really connect with on a creative level, all of the stored-up images come to the surface. Usually, that means I can be

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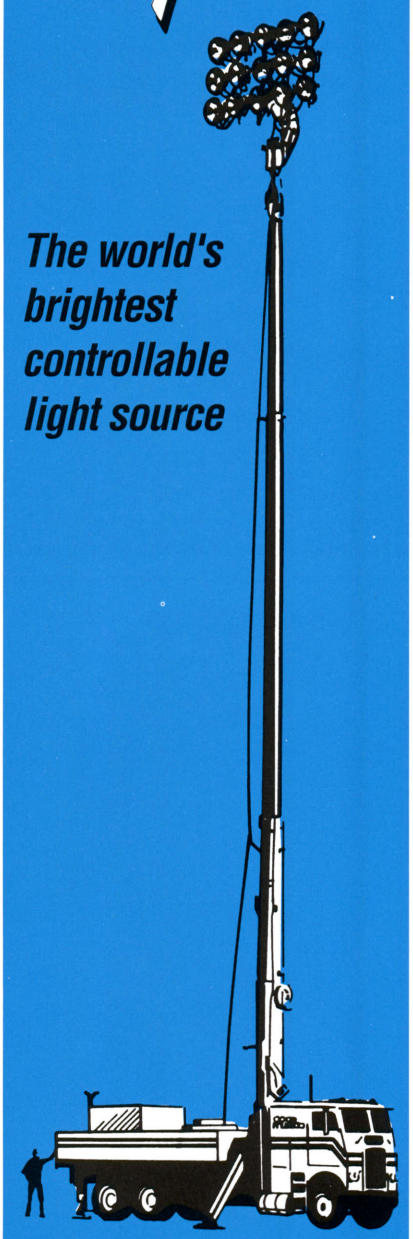
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Gothic Goddess

darker, moodier, and more dramatic with my concepts." In fact, Manson had enough faith in his synergy with Sigismondi to allow her virtually complete creative control. "His input was mostly in terms of mood; he would say things like 'I want it dark,'" she expounds.

"The Beautiful People" presents Manson as a ghostly, 13'- tall dictator in Fascist garb, flanked by equally tall obsidian angels as he rules over saluting citizens who gaze upon him with blank, hollow-eyed stares. Intercut with these shots are equally disturbing scenes of Manson strapped to a sadomasochistic orthodontic contraption that recalls the horrifically macabre milieus of Austrian painter Gottfried Helnwein.

This project resulted in Soos' experimentation with Clairmont Camera's SwingShift lenses (built by Century Precision Optics), which have bellows-like extensions which allow for greater flexibility in controlling focus and depth of field. He credits director/cameraman Samuel Bayer for bringing the equipment into the music video milieu, recalling, "I first saw a SwingShift [lens] used in the video for the Blind Melon song 'No Rain,' in which Bayer did these beautiful shots of the band in a field of flowers. I picked up on it a year or two later. It was already an established look, but I really wanted to energize the technique, and I needed a song to motivate this dynamic approach."

In "The Beautiful People," Soos created an effect with the SwingShift lenses which he describes as "in-camera vignettes and vertical shifting of the image, as if a projector had lost its loop." While shooting, he and his crew deployed follow-focus gear to remotely manipulate the lens, lending the imagery its jumpy, blurry quality. Soos' intention was to make artful use of "mistakes that most cinematographers try to avoid."

The Manson video was also the cameraman's first application of mixed color temperatures. In blending a tungsten key source with ambient daylight-balanced bounce from an HMI fixture, Soos was thinking ahead to the postproduction process. "We lot of room to play within the telecine," he explains. "The daylight/tungsten mix on the negative is usually enough to give the telecine artist enough chromatic separation within the scene to push and pull the contrast, colors, mids, blacks, and highlights in almost any direction. Lighting with color temperature in mind ultimately provides the most latitude for photographic printing."

The powerful subject matter of the "Beautiful People" piece contributed to an outcry against Marilyn Manson by conservative groups, and while Sigismondi accepts her role in the controversy, she remains somewhat uncertain as to what all the fuss is about. "It's far beyond my comprehension," she says with a sigh. "When I hear things or read articles about people going crazy [over Manson], I wonder how they can be so blind to the irony— it sounds as if they're fanatics." She does concede, however, that she may have disrupted the slumber of some viewers "who have said that the tall figures in 'The Beautiful People' are like characters from their nightmares." With a smile, Sigismondi adds, "But I think they're the most beautiful creatures."

If the director's imaginings are grist for the nightmare mill, it's because these bizarre icons literally spring forth from her dreams. "It comes from the creative anxiety of having to come up with something in three or four days — I'm constantly thinking about it. I fall asleep at three or four a.m., sometimes five, and I like to lie in bed when it's dark and really quiet — sometimes I have music on. I choose the early morning because, for me, the rest of the world has to be asleep. When waking or sleeping, you're closest to the dream state, and that's

the state in which I get images that are completely finished. I keep a notebook next to my bed, and a lot of times I write in the dark, because if I turn the lights on everything disappears. I do little sketches [next to my writing] because I don't know if I'll be able to read my writing when I wake up. A lot of the Manson images came from that process."

After the success of "The Beautiful People," Sigismondi was courted by clients from all over the world. (She now divides her time between Toronto, New York, and London.) Her experiences amid the energy of her new, often overwhelming environment lent even more fuel to her fiery talent. "I was just walking around [Manhattan], getting bombarded with all of these images," she recalls. "I would do dangerously stupid things, like walk around at three a.m. with headphones on — you should not do that! But those are the kind of things that put me on the edge and make me feel I'm alive. I would see something, say, in a store window, that would look like nothing during the day with people around. But seeing it at night, there was something about it." These nocturnal excursions directly inspired her next Manson video, "Tourniquet," in which a blue-skinned mannequin attempts to escape its confining environment; the singer himself is metamorphosed into an insect larva pinned to a wall.

Sigismondi's association with Manson led to the David Bowie "Little Wonder" video, which features oddly colored frames sped up to match the song's rhythms. In the piece, an alien resembling a younger version of the Thin White Duke peruses the streets of New York to discover a throng of baroque visions, all of which remain oblivious to passerby. Riding the subway, our protagonist encounters another alien creature accompanied by a grotesque baby which has a detachable head

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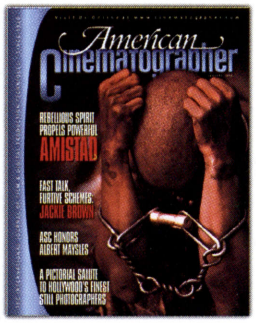

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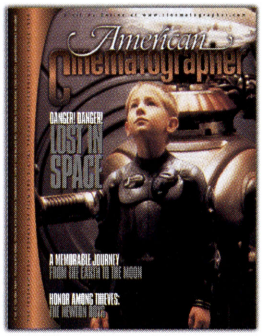

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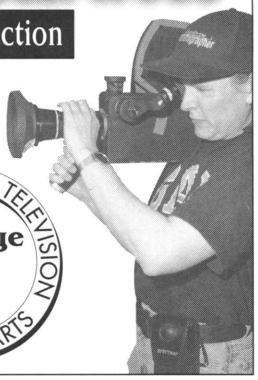

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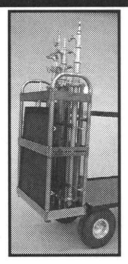

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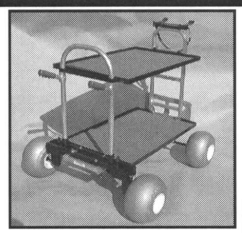

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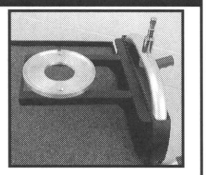

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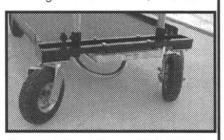

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Gothic Goddess

(which was actually Sigismondi herself in a cameo appearance). Our hero scoops up the newborn's noggin in a box only to later deposit it in a mailbox. Although Sigismondi insists that such an incident never happened to her, she maintains that she can relate to the wandering extraterrestrial.

Although Sigismondi and Soos pride themselves on putting in many hours of prep time, on-set spontaneity still factors into their visual mix. At one point during their shoot for "She Makes Me Wanna Die," a track by British trip-hop artist Tricky, the cinematographer got carried away with a last-minute idea and failed to make his call time. "We needed a 'distorted' quality," he recalls. "I was inspired to use pieces of beveled glass in front of the lens, which fractures the image, depending on the focal length. Going against the grain of lenses being too good — too sharp and too contrasty — and breaking those qualities down are the kind of thoughts that would kill Carl Zeiss. In redefining what the glass sees, you sometimes have to make your own glass."

On the morning of the Tricky shoot, the cameraman dropped by a stained-glass store. Arriving on set some 10 minutes late, he declared, "Floria, I've got an idea!" and proceeded to detail his proposed process. The resulting fissured photography enhanced the outlandish quality of the clip, which played up the writhing shapes of lizards, snakes, and Greek gorgons.

For "She Makes Me Wanna Die," Soos employed an Arriflex 435 ES. The cinematographer is effusive in his praise for the camera, noting its compact size, wide latitude in speed (1 to 150 fps), variable shutter (which ranges from 11.2 to 180 degrees), extremely bright viewfinder, and well-crafted balance for handheld shooting. Soos sums it up as "the camera that does everything."

Soos also took advantage of Kodak's Vision 500T 5279 emulsion. "I occasionally rate the Vision 500 at 250 ASA, and sometimes at 120 ASA," he explains. "It handles overexposure extremely well, specifically for telecine transfers. It also complements contrasty lighting extremely well; it leaves the blacks very black, the highlights really start to bloom, and the grain structure looks like a 50 ASA film when you deliver the telecine people a very 'fat' or overexposed negative." Since Soos favored high contrast and very sculpted lighting with no fill for the Tricky clip, the high-speed Vision 500T proved particularly suitable.

This brooding video also involved some rather imaginative exploitation of fluorescent fixtures. The camerman used fixtures fitted with Chimera soft boxes for his key, adding fluorescents as practical elements in the frame. "Just like other cinematographers would use a light bulb behind a lampshade in a corner of a room, I clustered a bunch of fluorescent tubes on a wall and had the wiring exposed," he recollects. "It was lighting, but it was also art direction."

Fluorescents can be so bright on camera that their illumination sometimes blows out, so Soos sprayed his units with a light coat of black paint. Once the tubes were lit up, the paint covering their surface "knocked the level down so it would become photographically friendly, and also created this really cool, corroded effect."

Sigismondi and Soos most recently collaborated on "Can't Get Loose," a video featuring British composer/multi-instrumentalist Barry Adamson, whose swanky style encompasses jazz, hip-hop, gospel, big band, funk and samples from the scores of Sixties spy thrillers. Adamson's albums play like soundtracks to imaginary films, which suits Sigismondi just fine, since her work is becoming more narrative-based.

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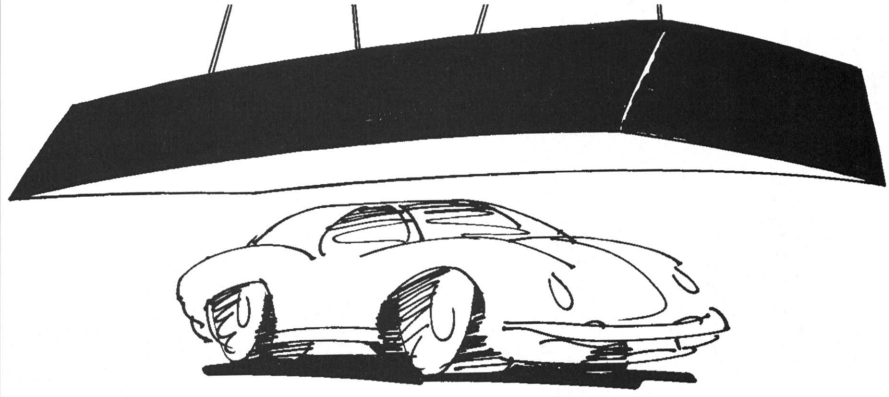

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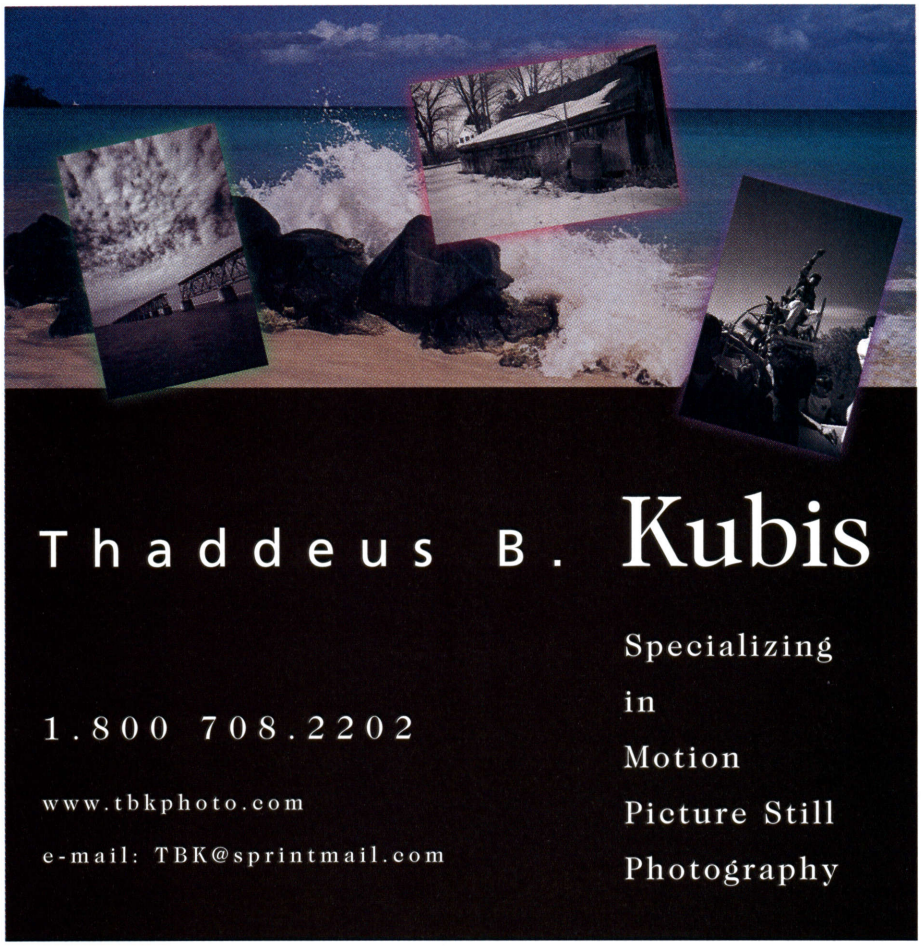

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"Can't Get Loose" is the director's most linear concept to date; it was inspired by one of her favorite films, Roman Polanski's *The Tenant.* "It has a little bit of that psychological thriller [edge] to it," she explains. "You don't know whether people are driving [the main character] crazy or if he really is crazy, which is a great subject that I'm always drawn to. I wanted to come up with something that was more filmic than stylized."

Sigismondi is hoping that "Can't Get Loose" will help her to land a feature film assignment in the coming year. Though tight-lipped about a current writing endeavor, she expects that her approach to cinema will be similar to her video work. She plans on developing ideas on her own and then collaborating with a screenwriter who will develop dialogue and structure. "I use all of the elements [of filmmaking] — body movement, camera movement and lighting — to express an emotion. I think my work will always have those kinds of elements — little symbolic images that take you deeper."

Even though Sigismondi's videos may have viewers anticipating a particular type of movie from her, she plans to confound expectations. Not surprisingly, she mentions *Seven* and *Edward Scissorhands* as two films that she admires, but maintains, "I wouldn't want to do a feature that would pigeonhole me into a certain category that would be hard for me to get out of. I'm interested in a lot of things, and I want to keep my options open. [Potential subjects and genres] could range from female issues to psychological thrillers."

No matter which topics she tackles in the next phase of her career, it is certain that Sigismondi won't be the only one losing sleep over them. ■

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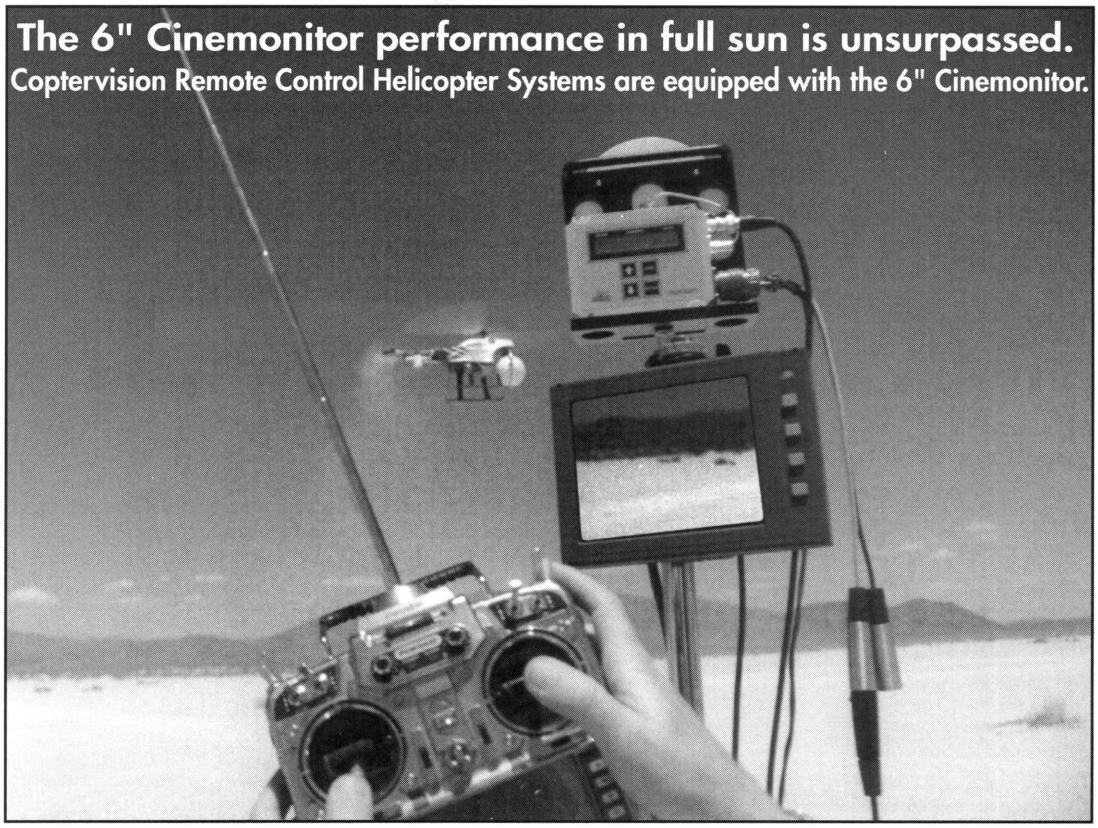

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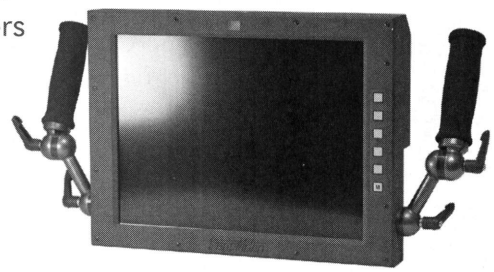

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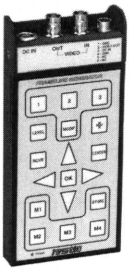

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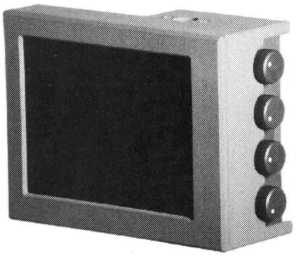

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Bada Devotee

Photo by Aldo Muro.

Music video pioneer Gerald Casale, co-founder of the New Wave art-rock band Devo, brings his quirky sensibility to the small screen.

by Andrew O. Thompson

In mid-1970s Middle America, the unassuming industrial town of Akron, Ohio suddenly became known as the launching pad of Devo, a self-professed "postmodern protest band" whose arty, kitsch-driven brand of electronic future pop helped herald the "New Wave" era of modern rock music. In its inception, however, Devo was conceived as an extreme exercise in Dadaist moviemaking, with its melodies intended to serve as mere accompaniment. The band's members quickly made an impression as rubber-faced, jerky-jointed androids in "Secret Agent Man," a surreal video which also featured a pair of bare-chested, monkey-masked men spanking a robe-draped woman. A followup clip, "Jocko Homo," presented three figures in full-body straitjackets writhing about on a conference table as a surrounding swarm of surgeons in sunglasses exclaimed

An assortment of actual frames from Devo videos directed by Gerald Casale. Above, top to bottom: "Secret Agent Man," "Jocko Homo" (frames 2 and 3) "Satisfaction" (featuring the shot of a baby jabbing a fork into a toaster, which led to the clip being banned from the British TV program *Top of the Pops*) and "Whip It." Right: "It's A Beautiful World" (frames 1-3) and "That's Good" (frames 3-6). In the latter video, the juxtapositioning of two rear-projected shots — the French fry penetrating the donut and the woman smiling in ecstasy — led MTV to ban the 1982 video from the airwaves.

the band's infamous tag line: "Are we not men? We are Devo!"

Far ahead of their time, Devo thus advanced the art of music video before they even became a bona-fide band. Co-founder Gerald Casale directed all of the act's 22 videos, including the memorable clips for "Whip It" and "Satisfaction" (both included on *Rolling Stone* magazine's list of the top 100 videos of all time), as well as "Girl U Want," "That's Good," and "It's a Beautiful World," which occupies a permanent position in New York's Whitney Museum. In 1986, Casale also began shooting videos for other musical acts, among them The Cars, Jane Siberry, Rush, Blancmange, Silverchair, The Foo Fighters, Soundgarden and Mint Condition.

Before embarking upon his career, Casale was an art major at Kent State University, where he was introduced to cinema production in a class taught by underground filmmaker Richard Myers. While attending Kent State, Casale became acquainted with Chuck Statler, a fellow student and future friend who would go on to shoot some of Devo's earliest videos. "Chuck and I had similar aesthetic sensibilities, and we ran around [with his Bolex] making really bizarre little movies with no real plots — just sequences of image-driven events that were evocative, funny, dark and nasty. Usually, I would end up in front of the camera in one of the various costumes that I'd made."

Casale later made the acquaintance of fellow musician Mark Mothersbaugh, and the pair soon enlisted drummer Alan Meyers and their respective younger brothers — both named Bob. The concept behind the band was "de-evolution," and the quintet began designing a soundtrack which would help illustrate their philosophies. After saving up $3,000 from a silkscreening and rubber-stamp

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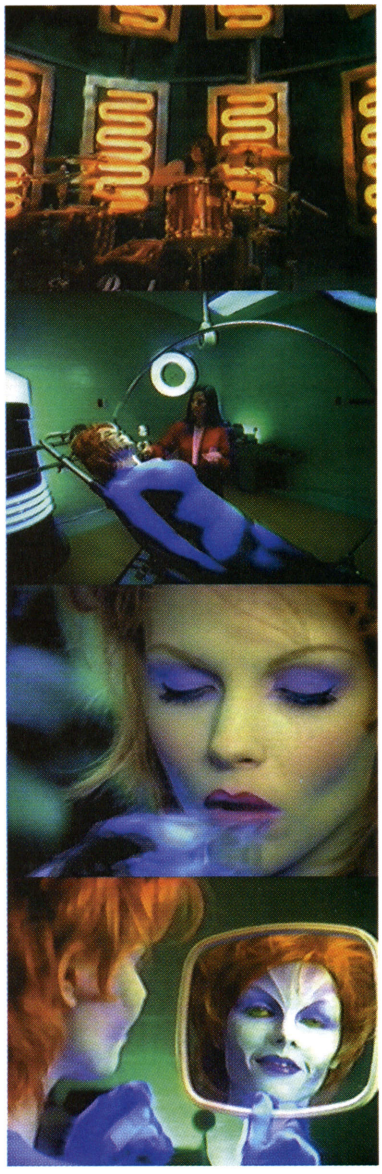

Near right: Clips from the award-winning video for Silverchair's "Freak." Casale photographed the piece on 16mm with Kodak Vision 200T, using orange and green hues to mimic the look of "a cheesy horror film." Far right: Frames from the Soundgarden spot "Blow Up the Outside World," a concept described by the director as "*A Clockwork Orange* meets *The Parallax View*." The viewscreen's disturbing imagery is meant to convey the madness of modern life.

venture, Statler and the band produced *The Truth About De-evolution*, a 10-minute experimental short directed by Casale which won an award at the 1976 Ann Arbor Film Festival.

Following this success, Devo signed a contract with Virgin Records, which gave them $5,000 to shoot a video. Opting to modernize a rock 'n' roll standard, they filmed themselves performing the Rolling Stones classic "Satisfaction" while clad in what would become signature Devo couture — biohazard suits fashioned from yellow plastic. Censorship reared its ugly head, however, and shots of a masked baby jabbing a fork into a toaster got the video banned from the British music program *Top of the Pops*.

In those pre-MTV days, record companies considered the very idea of making music videos to be rather pointless. As a result, budgets were quite frugal, since no one expected a financial return; "Whip It," which was recently inducted into the Music Video Production Association's Hall of Fame, cost just $15,000. The clip's oddball idea came from a Fifties magazine article about a dude-ranch owner who occasionally used a bullwhip to slash off bits of his wife's clothing for the thrill of paying spectators. During the video's 18-hour production, Casale stood on a ladder, hovering above an actress wearing a dress made up of detachable Velcro. Each time Mothersbaugh yanked back the long lash, Casale would peel off a piece of the woman's outfit in sync to the song's synthesized whip-crack. Reversing the shots completed the illusion that Mothersbaugh's marksmanship was responsible for her gradual exposure.

Casale considers the most successful Devo video to be the clip for the gold-selling single "It's A Beautiful World." Completed for a mere $17,000, this video consists of iconic imagery from the Twenties through the Sixties: World War I skirmishes; atomic explosions; beauty contests; hula dancers; retro-futuristic Fifties cars; Civil Rights-era race riots; emaciated, starving children; and peaceful love-ins. The juxtapositioning of these shots serves to illustrate how the double-edged sword of technology can produce a brave new world of both convenience and catastrophe. Casale and Statler spent hundreds of hours scouring archival houses on both coasts for suitable scenes, which he and editor Dale Cooper later

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blended with black-and-white performance footage of the band. The director says, "It's one of those videos, along with 'Whip It,' which stands the test of time, and [the lyrics represent] one man's opinion: 'It's a beautiful world for you, but not for me' — and it's so clear why. [The imagery] gives you the hope and silliness of human nature, but also the horror of the bad things that people do, and the fact that we could be different. It isn't just menial and silly or cynical and negative; it's more about yin and yang — both the light and dark sides of life are shown. The switcheroo that it pulls on people still works to this day.

"Today, considering the cost involved in getting the rights to archival footage, you couldn't make a video like that for less than $250,000. All of the independent archival film houses have pretty much been gobbled up by [large corporations]. And in a culture obsessed with TV-land and retro periods, everybody now knows what those pieces of film are worth; they didn't back then. The thought was more, 'This is junk, but we can make some money on it.'"

As far back as 1982, Devo had the foresight to incorporate blue-screen effects, computer-generated imagery and rearscreen projection into their live and video performances [as seen in the clips "Time Out For Fun," "Peek-a-Boo" and "That's Good"]. Casale notes that the band used the various techniques to "break all of the boundaries between the stage show, the record and video." While recording *Oh No, It's Devo,* for example, the group based every track around a rhythmic sequence integral to its composition. As a track was mixed onto a master tape, the same sequence with a click-track would be simultaneously laid onto another machine — thus allowing the musicians to sync up the song to a signal on another track hooked up to a video apparatus.

In detailing the benefits of this approach, Casale explains, "We could then marry background plates [of silhouetted symbols and geometric grids produced on a Kray computer] to the complete mixed song, edit them, and then project them during concerts, in sync with the sequencer sounds stripped off from the album mix. We would play live in front of a 25' by 30' screen positioned 10 feet behind us. In sync with the specific images on the screen were the background images that had been shown on MTV in the video for the very same song. What you saw live was the exact same thing seen in the video, down to the same sequencer line. If there had been video CDs back then, you could have listened to the record and looked at the screen at any point to see a live performance mixed with

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narrative video imagery — all cut in sync to the beat.

"It was experimental and cumbersome," he concedes. "We actually lugged around a six-track dubber and a 35mm projector rig connected with gear teeth to the dubber — which had the sequencer lines and click-tracks on it. The sound would come through our stage monitor system; we could hear it and play to the click-track and sequencer lines. The audience heard a perfect mix. But the whole system was costing us tons of money, and we never knew on any given night if it was going to work. Sometimes we lost the images as we started playing."

Though his more than 20-year association with Devo has earned Casale a reputation as an avant-garde *artiste,* he maintains that his creative process and working methods are fairly straightforward. He explains, "The visual language of where the camera is, what it represents, how it moves and how often I should edit all proceeds from the particular idea or concept being filmed. I rarely end up using the same equipment or film stock twice, but I work a lot with the same directors of photography [Anghel Decca and Welles Hackett] because they bring so much to the table and share the same work ethic as I do."

With Silverchair's "Freak" (which earned MTV Australia's Best International Video Award), Casale incorporated various hues and compositional tactics that were inspired by horror films. The band members are seen playing ferociously inside a tangerine-tinted room lined with heat lamps. As the temperature is cranked up, a scientist in a radiation suit swabs each of them with cotton to get a sweat sample, which he places in a petri dish. In a sea-green laboratory, a disfigured woman is injected with the group's secretions and reverts to normal human form. Later, after ingesting a beaker's worth of Silverchair perspiration, she transforms into a humanoid extraterrestrial. Says Casale, "The video is designed to look like a cheesy horror film, so we shot it on 16mm, using Kodak's Vision 200T [7274] at 30 frames per second and limiting the color palette to greens and oranges. We used the telecine to pump those colors up and drain the others from the spectrum."

A frequent motif in Casale's visual work — both with and without Devo — is supersaturated colored backgrounds (often provided by walls or cycloramas). The director generally prefers to manipulate palettes in postproduction rather than subjecting sets to specific gel shadings; he finds that tinkering in telecine leaves him with

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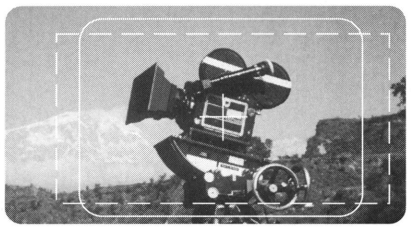

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Dada Devotee

more control over colors. He also is known to limit color schemes via art direction. While shooting a low-budget video for the industrial-techno band Fat, however, Casale employed both telecine and gel manipulation. The clip was shot in one 18-hour day at the bottom of an old barge parked at Pier 36 of New York City's Chelsea Wharf. "It was such a scary environment," he recalls. "The barge was dredged up from the bottom of the water and made into a 'lounge,' but down in the bowels of the thing, it looked like it did 50 years ago: it still had all of these dials, pipes, conduits, controls and low ceilings, but everything was covered with rust. We lit the space with all sorts of sodium vapor-type gels so that it would feel like a parking lot at night. Then we hung up some Lightning Strikes units, covered them with green [gels] and made them malfunction and flicker. In telecine, we took out all of the other colors and crushed the blacks heavily to create an almost duotone look."

The director's cinematic influences came forth in Soundgarden's "Blow Up the Outside World," which he describes as "*A Clockwork Orange* meets *The Parallax View.*" Suffused in a nauseating pea-green hue, the spot presents lead singer Chris Cornell fastened to a metallic chair and covered with electrodes. Two scientists monitor his reactions as a giant screen serves up a procession of disturbing images: Adolf Hitler greeting a child, a woman shooting up heroin, a huge crucifix set ablaze. Comments Casale, "I like the kinds of static wide-angle shots and slow pans that Stanley Kubrick uses, which allow you to study the world in a cold and analytical way. There was a lot of politically incorrect imagery [on the video's 'torture screen'], but the purpose of it was to illustrate the disturbing aspects of a world that is upside-down; the world we live in is so full of hate, violence, stupidity and inhumanity that [the character

played by Cornell] wants to blow up the outside world. But at the same time, he is being conditioned to accept the images that all of us are constantly fed by the media.

"I have an obsession with that bilious, sick green color," continues Casale. "To me, it represents industrial sludge or danger — there's something unholy about it. When you see those colors, you think of antifreeze running out of a car — in other words, the [Soundgarden video's milieu] does not reflect a positive world."

No stranger to having novel ideas rejected, Casale encountered stiff resistance to the TV look he designed for "Self-Destructive," a never-aired spot which the director and Anghel Decca shot for the rock 'n' roll group Ridel High. The clip presents the fictional television program of the clip's title, which plays out on a garishly designed set whose indigo, powder blue, bright orange and yellow hues recall the trappings of real game shows such as *The Joker's Wild* or *Tic Tac Dough.* The game's contestants (played by the three bandmates) must prevent audience members from being subjected to life-or-death situations: a naked, middle-aged man sits above a shark tank; an old woman engages in combat with a nunchaku-wielding karate master; a bubbly blonde sits blindfolded beneath a boulder suspended on a rope as a circus clown cuts the cord. Casale notes, "'Self-Destructive' was shot with a three-camera Beta package, just like an actual TV game show. There are certain angles that you don't see on these shows because of the limitations of a three-camera shoot, and they never edit those programs with rapid-fire one-second edits. The whole concept was that it was truly a 'music video.' When we showed the clip to MTV, they said, 'This looks like a game show.' Well, no kidding. Most of MTV's programming today is made up of game shows — they

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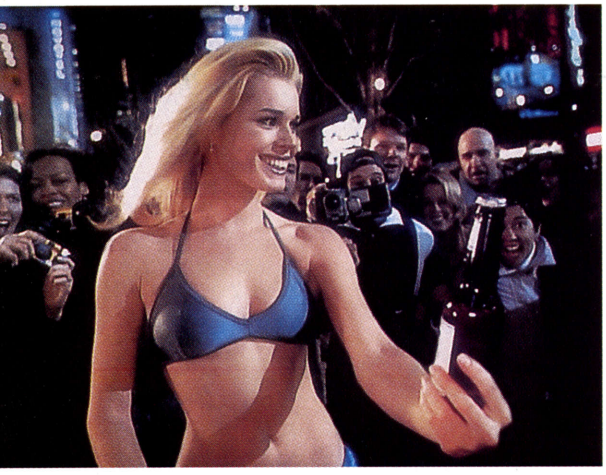

Supermodel Rebecca Romign struts her stuff in "Demonstration," one of the many advertisements Casale has directed for Miller Lite.

actually play very few music videos — so we designed our clip to *look* like a game show. *That's the joke.* MTV is supposed to be hip and cutting-edge, but that particular video didn't fly with them.

"[Because of the resistance to the video photography,] the clip's imagery was treated with Filmlook, a Kinescope-type transfer process. First, 4MC in Burbank digitized the video footage and output it to film. We then re-transfered that to video and recolorized it in telecine at 525 Post in Hollywood. To me, making video look like film is like making wood-grained paneling. But I have to say that Filmlook can be interesting in and of itself, even though it really doesn't look like film. If you accept it as polyester, you can get into it, and nowadays even the big designers use polyester!"

In the realm of commercials, Casale has injected his postmodernist leanings into populist art, particularly in his advertisements for high-end corporate clients such as Miller Lite and Unicare. He explains, "What was once radical — and what no one in commercials in their right mind would have ever gotten near — has, over time, become mainstream and hip, so it's not threatening anymore. We live in a world in which de-evolution has caught up with everyone, so what used to seem shocking, in bad taste and creepy is now met with 'Oh yeah!'"

Casale's recent 30-second Miller Lite spot "Kevin" illustrates the point. The ad is composed of three short vignettes which contrast its somber, self-sacrificing title character with pictures of pleasure-seekers: in a blue-hued airport cocktail lounge, a hostess boogies atop the bar as onlookers engage in debauchery; nuclear scientists do the limbo on a bright beach adjacent to their power plant; and in a Europop club called Der Circus, dancers gyrate spasmodically against a deep blue background, in a style reminiscent of comedian Mike Myers' infamous "Sprockets" skit on *Saturday Night Live.*

Throughout the spot, a tiny inset image of Kevin, sitting silently in an empty, fluorescent-lit room, remains in the screen's lower-right-hand corner. "The challenge of the Miller Lite campaign was that their

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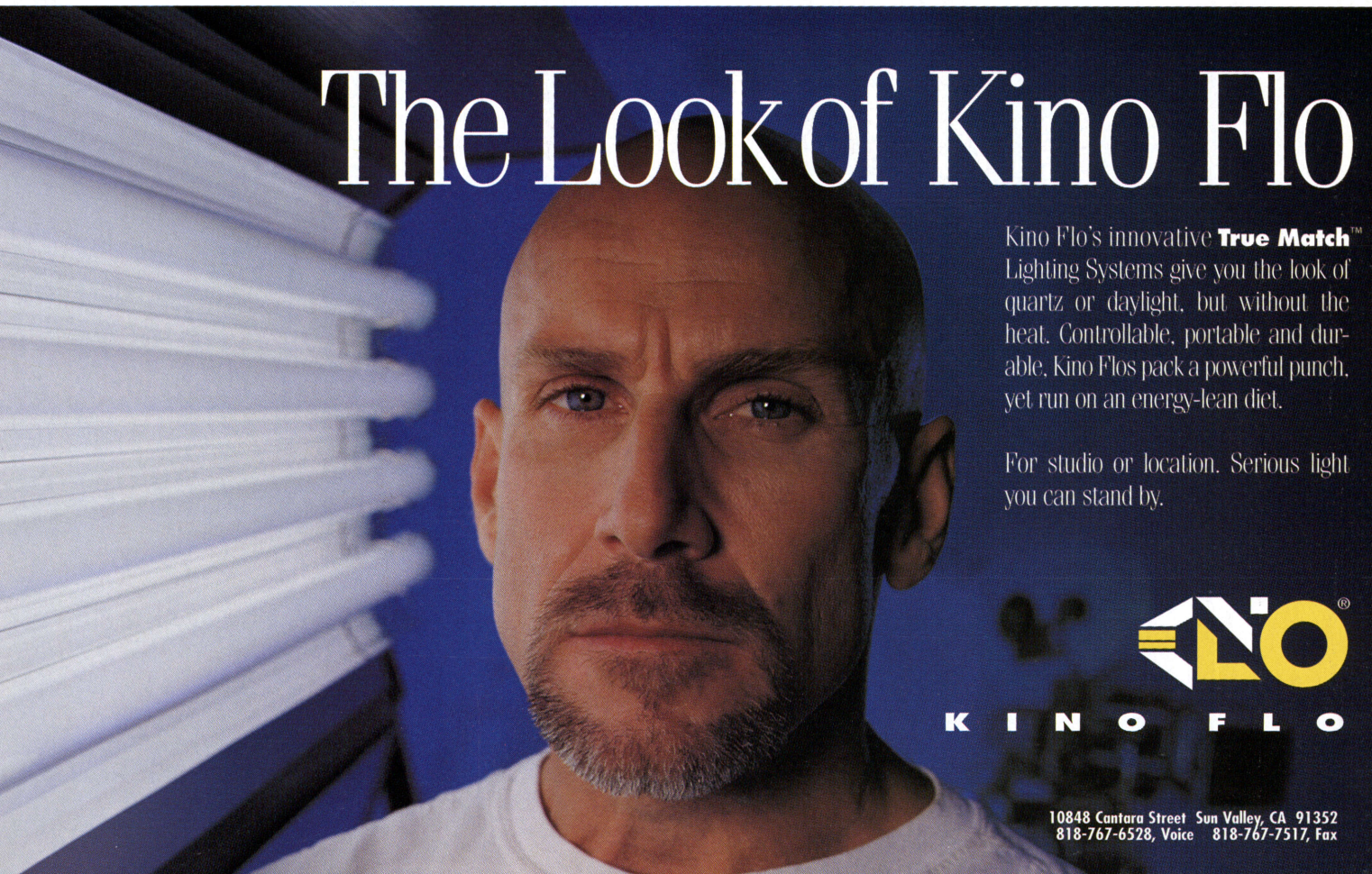
people wanted something that looked 30 years old — almost like Technicolor. To get that look, we decided to overexpose a slow 35mm Kodak stock like 5248 or 93, get a low-con print made and then go to telecine, where we would pump up the contrast and saturate the colors. We ended up with something that looks so real it's surreal."

Casale recently completed a series of 30-second spots for the healthcare company UniCare which mock the burgeoning genre of reality-based TV shows, such as *America's Most Wanted* and *Unsolved Mysteries*. In "Re-enactment," the host's voice-over describes a man being referred to a physician of his choice, as the images show him at home calling for an appointment and entering the doctor's office. These segments were respectively shot in blue and amber tones. A second spot, "Rarity," mimics the fuzzy black-and-white photography of a video surveillance camera as a woman in a mall praises the benefits of her health plan. Both of the UniCare ads are bookended with on-set shots of an a monotone-voiced announcer backed by the faux show title *Medical Miracles*. "Todd Gary and his partner Chuck over at Rubin Postair had me in mind because they wanted to steal the visual language of tabloid TV and reality-based TV shows, and do it in a way that people would both accept and laugh at. It's the good/bad aesthetic where the high meets the low.

"What we are dealing with in the commercial world is the kind of reality presented by [Pop Art painter and sculptor] Jeff Koontz — what he's gotten away with in fine art is very liberating and very healthy. I respect that, and it's not as easy as it looks. A lot of people might make things too cutesy or impose *too much* style because they refuse to let themselves make 'bad' compositions or go for art direction that they don't want to be associated with. If you watch reality-based shows, the host *doesn't* end up in the center of the frame, and he often *does* turn his head in a really stilted manner. And when actors are used for re-enactments, those shows always get better-looking people than the real people."

This fall, Casale plans to direct the feature film *Samson*, a quirky romantic comedy about a washed-up rock 'n' roll star on the verge of a comeback. One would expect a motion picture from a member of Devo to be rife with pop art and technical wizardry, but Casale maintains that he'll be striving for a slightly stylized visual simplicity. "You can make a film look as good as *Trainspotting* even if it's reality-based," he says. "*Samson* is going to be a very intelligent, well-made, low-budget film with good processing. There won't be room for tricks." ■



Nike Woos the World Cup

Director John Woo and cinematographer Gale Tattersall add visual kick to a spot celebrating Brazil's national soccer team.

by Mary Hardesty

Denilson shows off some fancy footwork as he dribbles through passengers at the Rio de Janeiro airport.

When Hong Kong action auteur John Woo (*The Killer, Face/Off*) asked director of photography Gale Tattersall to help bring his trademark style to his first-ever advertising campaign (Nike's "Airport '98"), the director also insisted on using his preferred multicamera coverage. "We often shot with three cameras simultaneously," Tattersall remembers, adding dryly, "That's rather few for John. I was prepared for six."

Depicting an impromptu soccer game that wends through a busy Rio de Janeiro airport, the spot celebrates the Nike-sponsored Brazilian football team's irrepressible love of life and sport. The clip begins with former and present members of the squad awaiting their delayed flight to France for the World Cup

tournament. Bored and restless, the team's superstar, "Player of the Year" Ronaldo, takes matters into his own hands and initiates a football match that transforms the airport interior and runway into an obstacle course cum soccer field. The ball flies from one player to the next, with Denilson dribbling it around passengers on a moving walkway; Romario evading a security guard to send the ball through the X-ray machine and onto the tarmac; Juninho kicking it over a taxiing jet (as Eric Cantona nods his approval from his passenger seat); and still others displaying their trademark footwork skills. It seems that nothing can stop the 10 players until Ronaldo kicks the ball toward what appears to be an easy goal, only to hit one of two small metal pillars which look suspiciously like goalposts.

Woo, a self-proclaimed "giant soccer fan" since childhood, crafted shots designed to capture each player's unique talents. By running three cameras simultaneously, the director was able to respond to what each player could do, allowing his subjects to move with total freedom and not worry about staying in the frame. That concern was placed on the shoulders of Tattersall and his camera crew.

The director of photography's relaxed, professional manner helped him conquer the complex production's blazing heat, as well as a variety of logistical and scheduling nightmares. "The asphalt in Rio can reach temperatures of 115 or 120°F," explains Tattersall, who advises keeping cameras out of direct sunlight during high-temperature shoots to avoid damaging the film stock. "The magazines can get so hot you can't touch them."

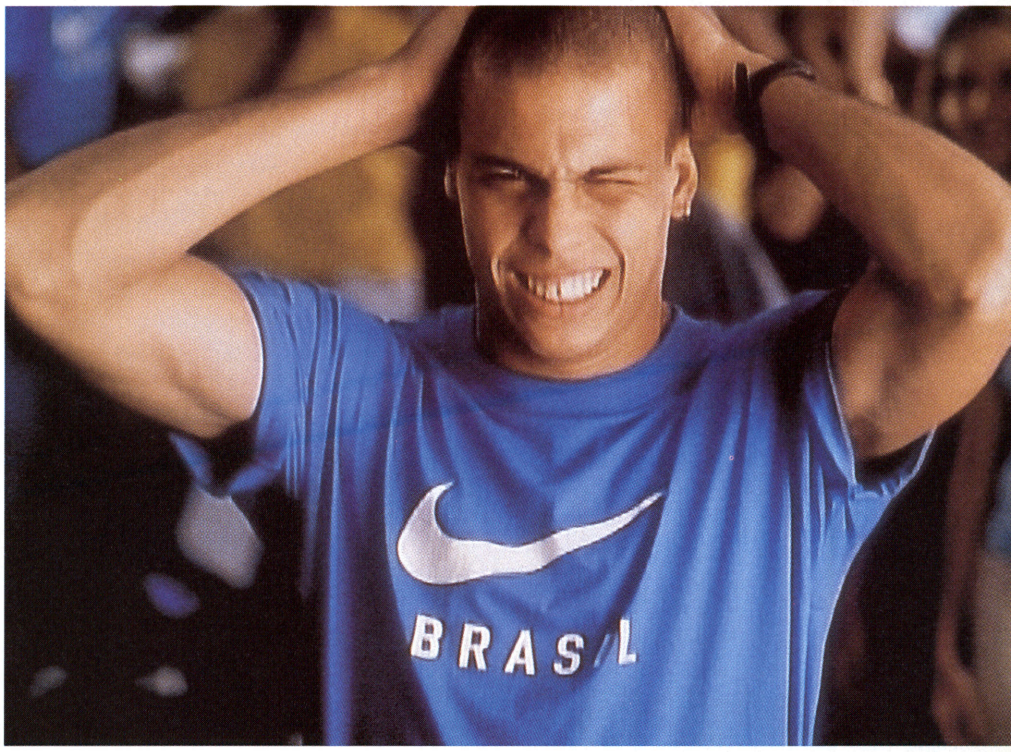
Outlining the filmmakers' general approach to the shoot, Tattersall relates, "John wanted to give the spot a natural look, rather than something more stylized, so we did things without camera marks. That way of working allowed us to capture the Brazilian team's spontaneity and charm, which brought warmth to the vast, impersonal airport setting. When John films something, it's like a dance. He carefully crafts every shot, and nothing is ever photographed in a mundane fashion."

Woo adds, "The football players didn't know much about the camera, so they always appeared to be natural and innocent. I had lots of moments to make them look great by photographing teasing smiles and childlike actions. Although we all came from so many different backgrounds, we ended up playing like kids, which added a lot of humor to the commercial."

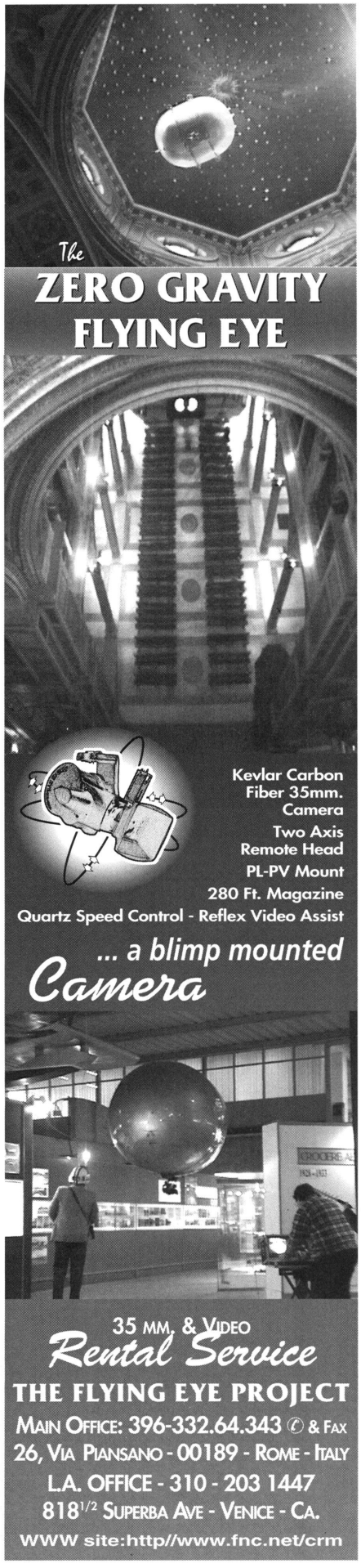
The spot, which also marks the launch of Nike's new Mercurial soccer shoe, had to be put together at the last minute during the Christmas holidays, when the soccer squad had a vacation break. "It was the only time we could get them all together," says Tattersall, who had just three days' notice before hopping a plane to Rio, which serves as home base to most of the team's players.

The project's production company, L.A.'s A Band Apart, had to use all of its clout to secure enough seats on airplane flights during the holiday crunch, and get the necessary equipment to the location. "I've shot at airports before, but never has it been such a challenge," Tattersall attests. "I can't tell you how chaotic it was shooting during the holiday in an airport where nobody wanted us. If you need something in Brazil, it's three days away or that office is closed for the month. Fortunately, we had Roberto Baker as our production manager. He's the best guy to fix everything when you shoot in Brazil."

The crew had to deal with everything from players showing up seven hours late to not getting key equipment because a truck had a flat tire. "This was John's first commercial, and after all of the headaches we went through, it might be his last," jokes Tattersall. "In the end, you either go with the Brazilian flow or die instantly. There's a certain pace of life down there, and if you go mad and start screaming at people, they



Brazil's top striker, Ronaldo, grimaces after missing his chance for a "goooooal."



Nike Woos the World Cup

look at you as if you're from another planet."

According to Tattersall, it's rare for feature directors to pull off a commercial well. "Quite often, they don't understand the necessity of cramming information into each frame, but John is naturally good at it," he offers. "He sees the filming process in his head, and knows how it's all going to cut. He would know exactly how many frames he wanted to go in the master."

Shooting with such a director can also have its drawbacks, however. "I never dreamt that he'd want to shoot opposing angles at the same time," recalls Tattersall. "That's a hell of a compromise for a director of photography, because you're shooting with the light completely behind you on one shot. But what you get is a wonderful meshing of the action in the speed of the cutting, so you don't notice the lighting problems. We had a running joke about it: I would ask John which shot he wanted to be horrible and completely flat!"

Since the spot's original storyboards changed so much, Tattersall was in constant contact with A Band Apart executive producer Michael Bodnarchek and the advertising agency, Amsterdam's Wieden & Kennedy. "Michael, John and I had several long conference calls because the shot list changed on a daily basis," explains Tattersall. "Almost hourly, we discovered things we couldn't do. It's hard when you're using a football as one of the main characters. I must give praise to the agency people, who were wonderfully open to making the spot as good as we could do it. It was a real combined effort."

With the exception of Brazilian camera operator Marcello Durst, who had just finished working with Tattersall on the epic HBO miniseries *From the Earth to the Moon* (see *AC* April '98), the rest of the crew was picked up locally. "We certainly had the best crew in Brazil, but I think in many ways all of the Brazilian crews are excellent," comments the cinematographer, whose wife happens to hail from Brazil. "They have this extraordinary ability to adapt. If you don't have a crane, you make do. If something's broken, they always manage to fix it or find another solution, but those things take time."

Because Woo likes to go for very dramatic angles, Tattersall brought in a Giraffe crane with a remote head that was able to swing, tilt and rise to a height of about 30'.

"Brazilian crews have this extraordinary ability to adapt. If you don't have a crane, you make do. If something's broken, they always manage to fix it or find another solution."

— Gale Tattersall

Tattersall estimates that as much as 15 percent of the footage was shot via remote, while another 10 percent was executed with a Steadicam. "The Steadicam operator, Jeff Mart, was excellent," notes Tattersall. "He has this amazing ability to wear a Steadicam and ride a bicycle using only one side of the handlebars. He can literally drop the bike, get off and start walking. In this spot, we used him mostly for tracking shots. I recall one shot in particular where he placed the camera at a very low angle and steered his bike toward a player just as the ball was kicked. The handy bicycle/Steadicam setup was also great for passing through a crowd of people without having to worry about the bulk of a dolly."

With the exception of a private V.I.P. departure lounge, the spot was shot in and around Varig Airlines' maintenance hangers. "They'd heard horror stories about lights melting airplane windows, and didn't want us

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In a clever composite shot, Juninho boots the ball away from a looming jetliner. Temperatures on the tarmac reached as high as 120°F during the shoot.

wheeling any lights near their planes," recounts Tattersall with a chuckle.

Because it was difficult to get players and equipment in the same place at the same time (the whole crew once waited seven hours for Ronaldo to show up), much of the shoot was done at midday. The bright overhead sun not only made the asphalt brutally hot to shoot on, but created tough lighting issues as well. "The windows on the departure lounge were covered with a massively thick neutral-density coating," recalls Tattersall. "Whatever lights we thought were powerful enough ended up being three stops less than we'd figured."

No matter how brief a scene may be, Tattersall adds, it's critical to keep the lighting coming from the same direction at the same level. "It's important to be honest to the lighting integrity," he maintains. "That helps to achieve a believable finished product, especially if shots are going to be composited together. If something's wrong, the human brain will pick it up, even if the viewer may not be able to put a finger on it."

Airport security policies prevented the crew from placing lights in many areas, and the safety of the soccer players also became a factor. Tattersall recalls, "Because it was very dangerous to have players on the runways, a lot of the outdoor

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shots were done in front of a 20' by 20' greenscreen, which was the largest we could find. The airplane was matted in later."

Digital techniques were also used to pull off a gag involving a moving baggage cart. The cameraman explains, "We did a shot of a player kicking the ball, took the real ball away and substituted a CG ball. We then used the computer to change its path and make it appear as if the player had kicked it through the open door of a moving cart on a live runway."

Because the spot required a substantial amount of postproduction image processing, the cinematographer tried to use as little lens filtration as possible. "I tried to keep it fairly clean," notes Tattersall. "It's important not to get too heavy with special filters if you expect to get tricky in post. It's best to give the post people the cleanest possible images."

The spot was shot almost entirely using Kodak's EXR 5293 film stock, which he rated at 125 ASA using standard 85 correction. "We went with a stock that was fast enough to shoot interiors, yet fine-grained enough to work in post," notes Tattersall, who shot with his traditional Arriflex camera package, including the 435ES. "These relatively new cameras have high-speed capability and can run up to 150 frames per second. The 435ES also gives you the wonderful option of being able to change the speed of the shot during normal shooting and have the electronic shutter compensate for the difference. The aperture stays the same, but the shutter slowly closes." Some of the kicking shots were run at normal speed until the moment the ball was kicked. The camera was then cranked up to a high speed. "This makes the ball appear to float a bit, and gives it a bit more of a magical feel," Tattersall observes. "Otherwise, the ball would quickly disappear from sight in three frames."

Since the crew didn't know what they would run into while shooting, a complete package of Zeiss lenses was ordered. "We relied heavily upon the faster lenses. People kept turning up late, and we would have to re-create the departure lounge lighting to make it look like the middle of the day," the cameraman recounts.

After wrapping the Nike shoot, Tattersall flew immediately to Canada to shoot Mike Newell's black comedy *Pushing Tin*. Reflecting upon on his time in Brazil, he says that he enjoyed the experience despite the difficult working conditions. "Believe it or not, shooting commercials is like a break for me. Looking back, there was nothing we could have done better when we were in the trenches." ■

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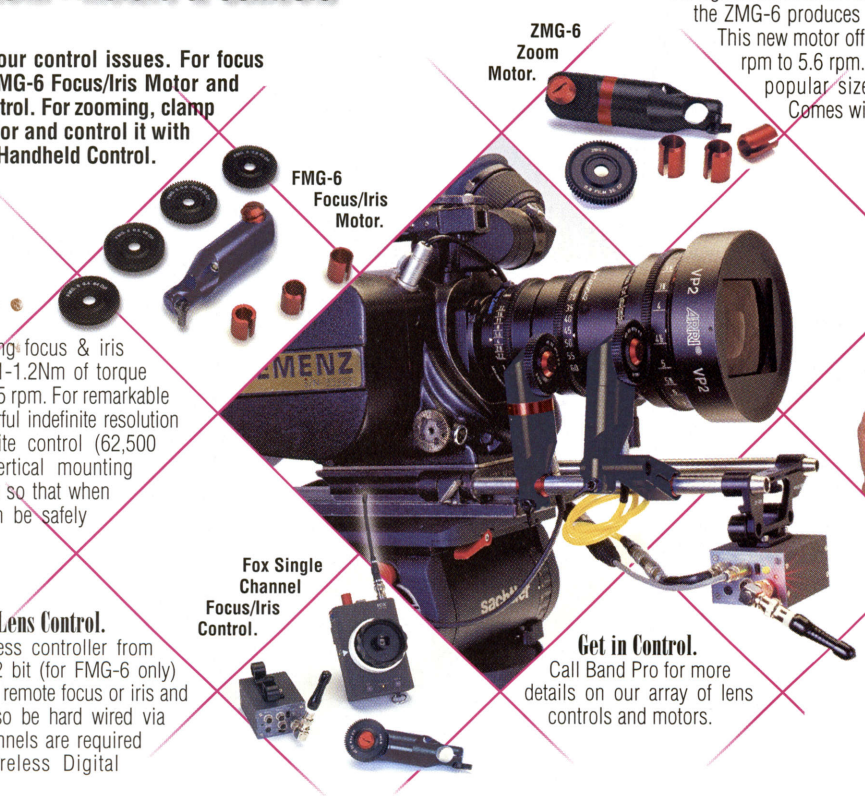

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Demonic Convergence

Director of photography Owen Roizman, ASC's realistic rendering of a supernatural nightmare made *The Exorcist* an immediate horror classic.

by David E. Williams

Photography by Josh Weiner

On the evening of April 3, 1998, a special screening of *The Exorcist* took place at Mann's Chinese Theater in Hollywood as part of Warner Bros.' 75th Anniversary Celebration festivities. Before the house lights dimmed and the notorious 1973 motion picture unspooled for the packed audience, director William Friedkin warmly introduced members of the film's creative team: assistant director Terence A. Donnelly, film editor Bud Smith, writer/producer William Peter Blatty, and director of photography Owen Roizman, ASC. All of the men were welcomed with roaring applause as they made their way to the front of the theater, with Friedkin extolling the virtues of their individual contributions.

Following a standing ovation, the five filmmakers rejoined the audience and sat back to re-experience what they had wrought 25 years earlier. For Roizman, accompanied by his wife Mona and son Eric, it was the first time he had seen the film with an audience in many years. "Billy and I timed the print that was screened that night," says the cameraman, who was recently profiled in the February '97 issue of *AC* after being selected to receive the ASC's Lifetime Achievement Award. "I thought the screening went really

well. The film truly holds up."

It was while Blatty's 1971 novel was still creating a stir on the best-seller charts — ultimately selling some 13 million copies — that Roizman had his first encounter with the material. The cinematographer was in San Francisco at the time, busily shooting the comedy *Play It Again, Sam* for director Herbert Ross. It was the New York native's second film since shooting his feature debut, *The French Connection*, which was also directed by Friedkin and later earned the cameraman an Academy Award nomination. Roizman remembers, "I'd come home after working long days, and every night Mona would be reading this book — completely engrossed in it. I asked her what it was about and she said, 'This young girl has been possessed by the devil and two priests are going to exorcise her.' It sounded scary as hell and I had no desire to read it.

"After I finished that picture, we returned back East, and Billy [Friedkin] called me up. He said, 'I've got a great story for us to do, *The Exorcist*.' Billy is a fantastic storyteller and he described it in such a way that I said, 'That sounds great!' I told Mona about it and she said, 'That's the same story I told you about when we were in San Francisco!' I read the book right away and loved it."

Blatty's bestseller was loosely based on a supposedly real case of possession that occurred in Mt. Rainier, Maryland in 1949, during which three Jesuit priests deposed a sinister spirit said to inhabit a teenage boy. While different from his novel, the author's screenplay accurately captures the book's sense of unrelenting terror. The film opens at an archeological dig in the wastelands of Iraq, where Father Lankester Merrin (Max von Sydow) finds a demonic figurine of ancient origin. The elderly scholar later travels to the remains of a ruined city and confronts a statue of Pazuzu, a winged devil reminiscent of the figurine.

A world away, in the tony Washington, D.C. suburb of Georgetown, 12-year-old Regan MacNeil (Linda Blair) lives with her movie-star mother, Chris (Ellen Berstyn), who is working on a new film there. A poltergeist infestation plagues the house, focusing on Regan, who exhibits violent multiple personalities. Extensive, painful medical tests reveal nothing. Desperate, a doctor explains the practice of exorcism, suggesting to Chris that the ritual may psychologically help Regan.

Meanwhile, the director of Chris's film, Burke Dennings (Jack MacGowran), is found dead at the bottom of a steep flight of stairs located near the MacNeil house. He had last been seen in Regan's room. Down the road, a Catholic church is obscenely desecrated. Theorizing that the two crimes may be witchcraft-related, crusty police lieutenant William F. Kinderman (Lee J. Cobb) pays a visit to Father Damien Karras (Jason Miller), an intense young priest from the nearby Jesuit university. Karras is struggling with a loss of faith and the death of his mother. Kinderman also meets with Chris, who suspects that Regan may have had a hand in Dennings' fate.

Frightened, Chris asks Karras to perform an exorcism on her daughter. Though skeptical, the priest agrees to see Regan and finds that the girl has undergone a hideous transformation. He makes a case to his superiors in the church that an exorcism should be performed. In turn, they summon Father Lankester Merrin.

The two priests enter Regan's bedroom and valiantly attempt to cast the spirit from her body. Merrin dies during the ceremony and Karras loses control, pummeling the fiendish creature Regan has become and demanding, "Come into me!"

The spirit does so, freeing Regan to take hold of the priest, who uses his final bit of free will to leap through the bedroom window and plunge to his death — on the same spot where Dennings had been found. As he lies dying, he is given last rites by his friend, Father Dyer (Rev. William O'Malley, SJ). Karras has defeated the Devil by sacrificing himself.

To better understand the story and events that take place in *The Exorcist*, Roizman also read the primary source material that inspired Blatty's novel: a diary account of the Mt. Rainier case written by one of the priests involved. "It seemed so real," the cinematographer

Opposite: Fathers Merrin (Max von Sydow) and Karras (Jason Miller) compel the forces of evil to release Regan (Linda Blair). The levitation was done practically, as were almost all the film's effects. To hide the fine wires suspending the actress, Roizman carefully painted them with a pattern of alternating shades. Below: The film's signature shot, with an eerie beam of light falling on Merrin as he arrives.

Demonic Convergence

Merrin prays for Regan's soul. Rendered in grays and beige tones, the bedroom set became an almost monochromatic space, adding to the uneasiness of the exorcism scenes. (Actual film clip.)

remembers, "and for me it was scarier than the book. I always research a picture as much as possible, and on *The Exorcist,* it helped to know that there were cases like this and to experience the fright that I felt when I read about all of these odd things that supposedly occurred. Blatty also lent me an audio tape of an exorcism that was performed on a boy in Italy. The whole thing was in Italian, so I didn't understand any of the words, but the sounds that came out of the boy's mouth were unbelievable. After that, I was prepared psychologically to get into this picture."

This connection to the real world played directly into Roizman's photographic style. He and Friedkin wanted to tackle *The Exorcist* with what the cameraman describes as "a very naturalistic look. Billy didn't want it to look like one of these clichéd Hollywood horror films. He felt the story would be best presented if the audience felt it had a realistic setting, and that this situation could actually happen. I agreed, because if we could make the audience unaware of the lighting and the presence of the camera, then they would really *believe.* This feeling also came from my reading Blatty's research material and listening to that tape, which made me picture in my mind the reality of those situations. But Billy said that he'd like to keep the visual style a step above what we'd done on *The French Connection,* and not go for such a raw documentary feeling. This film was to be a bit slicker and have a more controlled look, so that's what we attempted to get."

This plan was rigidly adhered to throughout the production, though it sometimes made Roizman's job more complicated, and necessitated a pervasive use of indirect lighting since sources were often limited. However, to avoid any semblance of flatness, this soft illumination was often brought in from extreme high or low angles, contradicting the nature of the given environment to create a general air of unease. As an example, the cinematographer offers, "We would sometimes use heavily diffused light from directly above the actors, which would not be normal in a room where the primary sources were table and floor lamps. But the effect was very subtle, and we avoided the extreme use of shadows."

On August 14, 1972, the production began what was to be several weeks of shooting on various locations and at the old 20th Century Fox/Movietone Stages, located near 10th Avenue and 52nd Street in New York City. Weeks turned into several months, though, as Friedkin reasoned that if the film was not absolutely perfect in its execution, audiences would immediately dismiss the supernatural story's more outlandish elements. Scheduled for just over 70 days, the U.S. portion of the production shot for more than 180, going well over budget.

The sets at Fox were designed to match the film's generally realistic visual approach, and primarily depicted various spaces in the upscale MacNeil household. "We didn't want to create a *Psycho*-type house," Roizman states. "All of the rooms were basically designed to be elegant and well-furnished — a warm and moody house. We approached the lighting as we would a location, especially in dealing with the windows, which we would always allow to softly blow out. But we then tried to give the house a kind of ominous feeling, as if some lurking, mysterious thing were hanging over it." With a smile, he adds that several furnishings from these sets now adorn his own home, including a large wooden wardrobe and an infamously stained carpet.

There was room for more overt lighting when it was necessary, however. "When Father Merrin arrives at the house and Chris opens the front door to let him in, we first see him completely in silhouette," Roizman notes. "He's just this shadow, and it's not until he comes into the light that we see his face and realize who he is. That's stylized. I also went more expressionistic for a sequence during the exorcism when Merrin and Karras are sitting on the staircase outside of Regan's room — the light comes through the handrail and shadows break across Jason Miller's face. There are some other shots where we took license, but it was usually done in such a way that it didn't draw too much attention, primarily because it was just enhanc-

ing what was going on in the story."

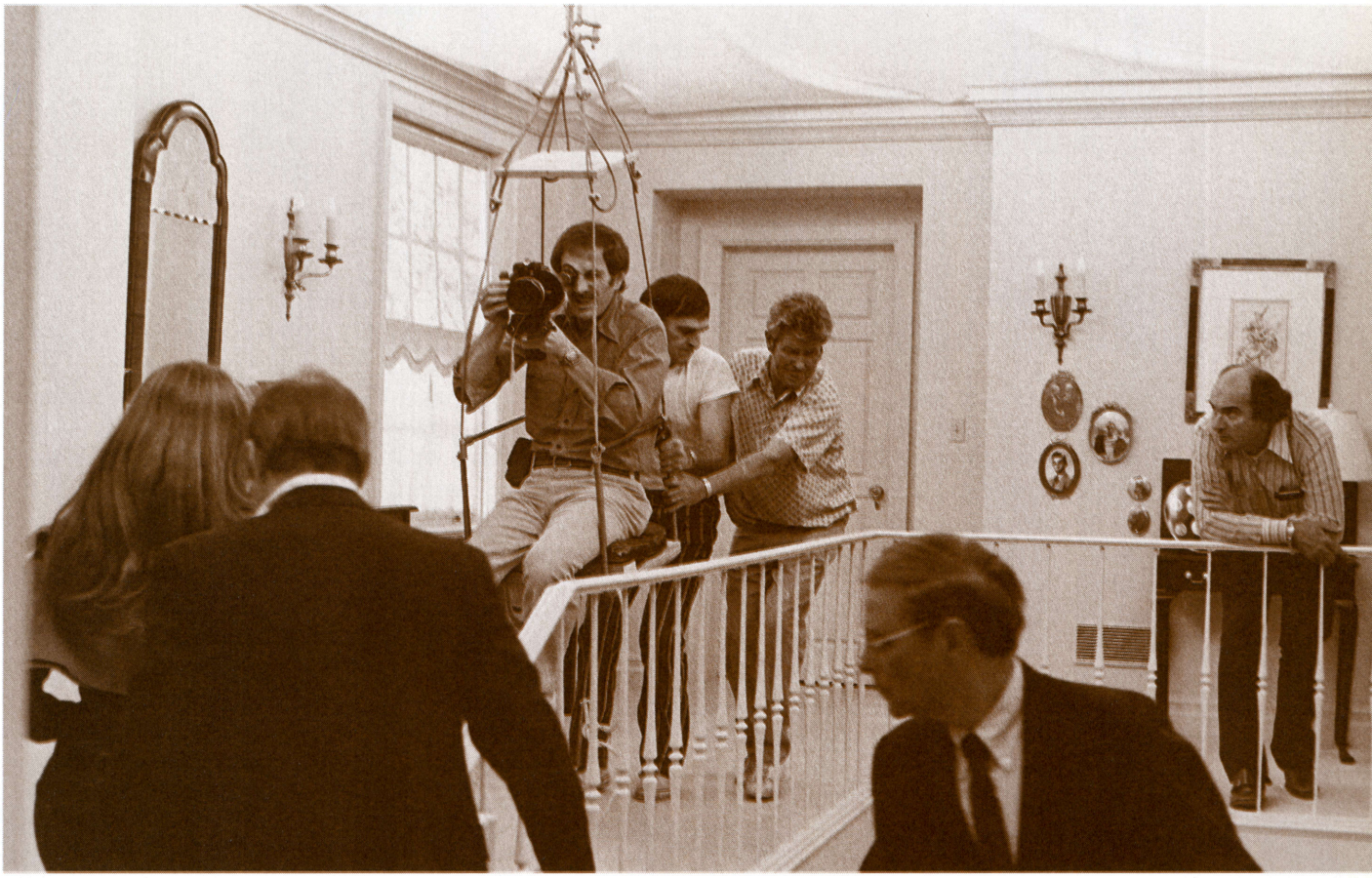
A sudden change in lighting strategies made a scene set in the home's attic unexpectedly difficult. As staged, Chris was to search the spooky space by candlelight, seeking out the source of some strange and disturbing sounds. Suddenly, her candle erupts in a burst of flame. "In preproduction, we hollowed out a candle and built in a little gas flame that would create that effect," Roizman details. "Inside, near the top, we cut out a space for a little peanut bulb, which we would control on a dimmer for a nicely fluctuating light on Ellen's face. By holding the candle correctly, she would be lighting her own face. Well, we got ready to do the shot, running a wire down the sleeve of her nightgown, and I said to Billy, 'Please just ask Ellen not to turn the candle, so we won't see the bulb in there.' He said, 'I can't ask the actor to do that! We have to light the scene in some different way.' We were just about to roll, but he insisted, although I knew Ellen would have done it. Besides her wonderful acting talent, she was very good about the technical side of filmmaking."

As a result, Roizman and his crew began quickly rigging the attic set with inky-dinks on dimmers, setting up a choreography to simulate the traveling candlelight effect. "Every time I'd seen that technique used in a movie I thought it looked phony and I hated it," the cinematographer attests. "I hated it in this picture too. But I was caught by surprise and we had to do it in a hurry."

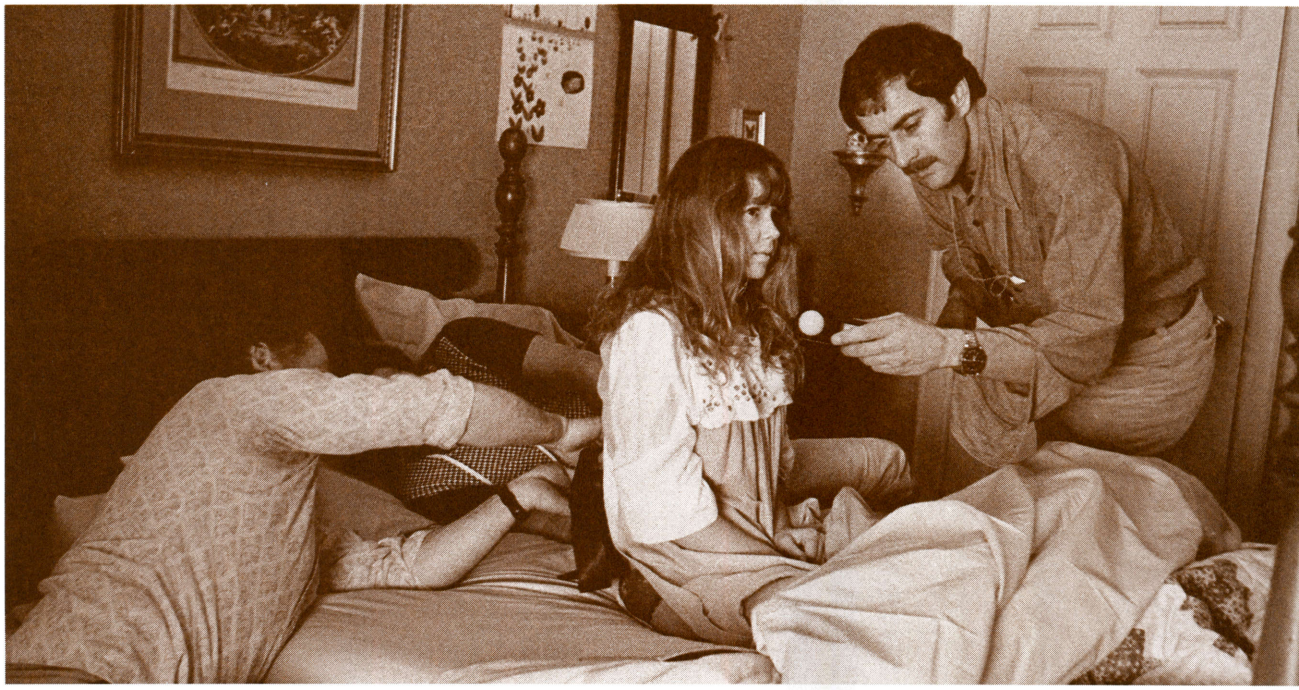
In the days before the Steadicam, cinematographers were often compelled to devise complicated ways to gracefully traverse uneven terrain, and *The Exorcist* contains a perfect illustration of this dilemma. Late in the second act, a pair of doctors arrive at the MacNeil house to examine Regan. Entering the front door, they hear loud thumping sounds and screaming from her second-story room and race up a half-winding staircase to get there. While the coverage could have been done in any number of ways, it was determined that a single unbroken shot would enhance the audience's connection to the action. Roizman details, "We wanted to take the actors from the front door and stay in front of them as they went all the way up the stairs and around the curve, and then back up and let them pass by us. We'd then swing in behind and follow them into Regan's room."

In order to accomplish the move, key grip Eddie Quinn built a small platform seat that was suspended from tracks mounted to the ceiling and capable of carrying

Roizman takes a crack at operating while doing a rehearsal for the stairwell shot, riding the "floating" platform built by key grip Eddie Quinn, who is maneuvering the rig with the help of dolly grip Jack Volpe. Camera operator Enrique Bravo observes from the railing. Note the muslin-draped ceiling. Soft-lighting the scene from above allowed the camera to see for virtually 360 degrees and removed most shadows.



Demonic Convergence



As Roizman checks his light, Linda Blair is fitted with a mechanical harness designed to throw her body into neck-snapping "demonic" convulsions. The young actress would suffer lower back problems for years to come.

The Exorcist was the fifth feature that Bravo, camera assistant Tom Priestly Jr., and second assistant Gary Miller had worked on with Roizman, and the cinematographer attests, "we knew each other like the backs of our own hands. Ricky, who had been a cameraman in Cuba before he came to the States, had the exact same sense of composition that I did. I never had to explain anything to him. Priestly was a great assistant, and wanted to be a cinematographer himself. I used to push him all the time, asking, 'When are you going to become an operator? Stop being so lazy!' Having such experienced guys on the film was very helpful."

The set depicting Regan's bedroom was constructed with a removable ceiling and flyaway walls on a raised gimbal (to allow for the various effects mechanics), and its appearance parallels the character's ghastly transformation. Beginning as a typically cheery girl's room, it later becomes a grim torture chamber. During the film's lengthy exorcism finalé, as Karras and Merrin challenge the force of evil within the girl, the room was sparsely dressed, with careful art direction providing subliminal dread. "The room was designed to be very monochromatic by that point," Roizman explains. "The walls were a gray-taupe color and the bedsheets were neutral beige. The priests were dressed in black, which helped, but we stayed away from any pure white because it would have jumped out too much. In toning everything down like that, the only real color in the room became the skin tones — an effect I personally like very much. This sequence has an almost black-and-white feeling, yet there is subtle color there. In the rest of the picture we let the colors play normally."

Heat and lighting became key issues throughout the exorcism sequence. In the story, the paranormal activities leave the bedroom frighteningly frigid, and since the authenticity-obsessed Friedkin wanted to see the performers' breath vapor, the set was built in a refrigerated room ironically dubbed "The Cocoon." The crew kept the room at a temperature of about -20°F, making heavy coats a necessity for anyone working in the space. "We did some tests with the temperature at about 25 degrees, and you could see some breath, but it wasn't really enough," Roizman says. "When the lights were turned on, their heat warmed the room so quickly that we couldn't even get a single take. The breath showed up fine at zero, but Friedkin wanted the actors to really *feel* the cold because he thought it would help their acting. An actor on his knees for 20 minutes at minus 20 degrees *is* really going to feel the cold."

The room was ostensibly illuminated by a pair of small table lamps set on either side of Regan's

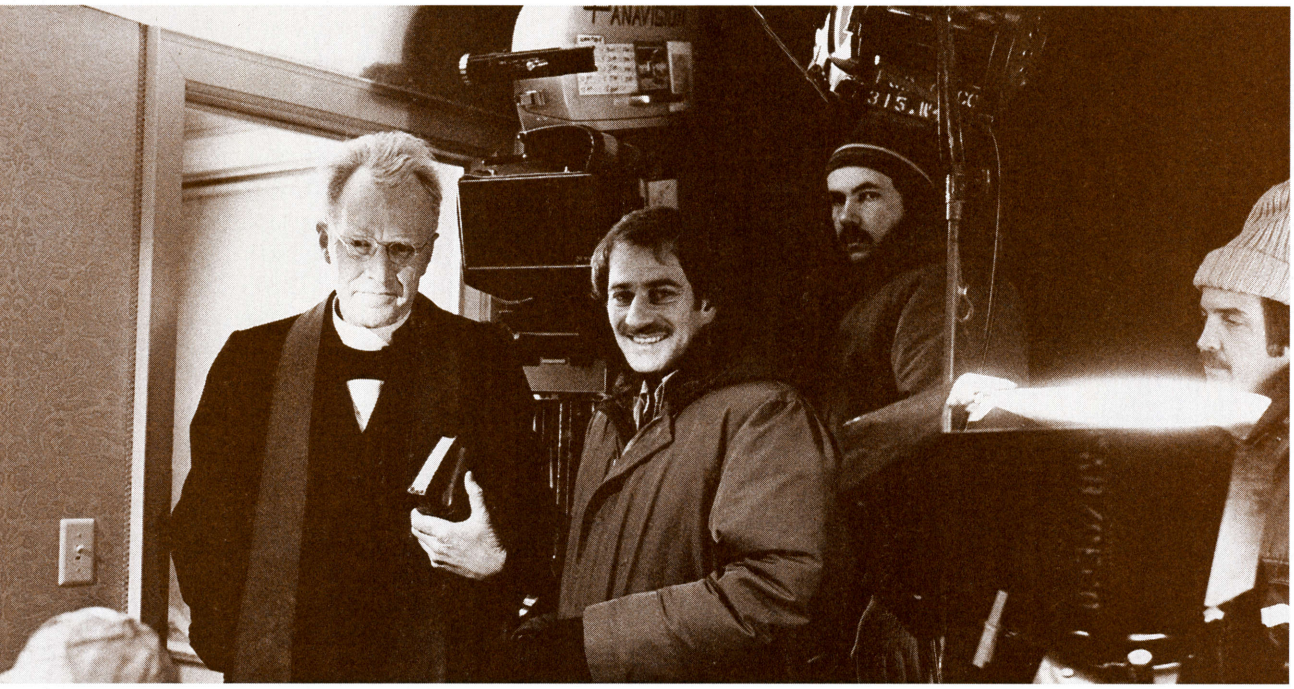
four-poster bed. To ensure that the breath vapor would read correctly, Roizman painstakingly created a backlight effect for each actor while trying to stay true to his source-lighting approach. "This created a problem because our sources were right next to the bed, and [the priests] were always facing the light," the cameraman notes. "The challenge was to get the backlight on the breath while keeping it off everything else. With the actors moving all the time, it became difficult to hide the backlight and keep it off them; my gaffer, Dick Quinlan, was usually sitting on the floor behind Max and Jason, handholding an inky-dink with a snoot on it and just getting the light on the vapor. He did an amazing job.

"For some arbitrary reason I never understood, Billy didn't want to use any backlight on the actors during the exorcism. That was like a monkey wrench for me; I could only use frontal, side or cross light. The action called for people to be walking through the door and around the room, and because we were often shooting from low angles, we'd see almost the entire ceiling and three walls at one time. For this reason, our biggest lamps were usually inky-dinks — occasionally a baby or some zip lights — hidden wherever we had space. We were controlling them on dimmers, so that if an actor got too close to one, we could take it down. Dick had one dimmer in each hand, as did one of his crew members. They would sit and ride those four dimmers as if they were playing musical instruments. The lights were also very carefully netted, and we'd grade the nets down as much as possible within the light because we didn't have the room to place them away from the fixtures and do it sharply."

The difficulty of achieving a proper exposure under such conditions demanded that all of the film's interior footage be force-developed by one stop. This allowed Roizman to slightly wash out the highlights and print down to retain rich blacks, eliminating the smooth gradations between tones and increasing the contrast. At the time, the cameraman regularly utilized this process, but he later abandoned it. "The blacks in those scenes were always a bit milky, and I was never happy with them," he admits. "But given the stocks we were using back then, it was the best that could be done."

The exorcism sequence showcases a wide variety of violent special effects depicting Pazuzu's wrath, but one of the most disturbing — the illusion that Regan is slowly levitating toward the ceiling — was executed in a very basic way. Like most of the other effects sequences in the film, this scene was done in a practical manner, in front of the camera, using the simplest of techniques: wires. "I've always found it easy to hide wires even when shooting against a background of normal tone," Roizman attests. "I'd done it many times before while shooting commercials, simply by painting the wires with alternating shades of paint to disrupt the straight line. It's like a checkerboard pattern. But in this case, the girl was moving through such extremes of background light and shadow that it was enormously difficult to hide the wires."

Makeup effects artist Dick Smith's more ghastly work in the picture still draws gasps: projectile

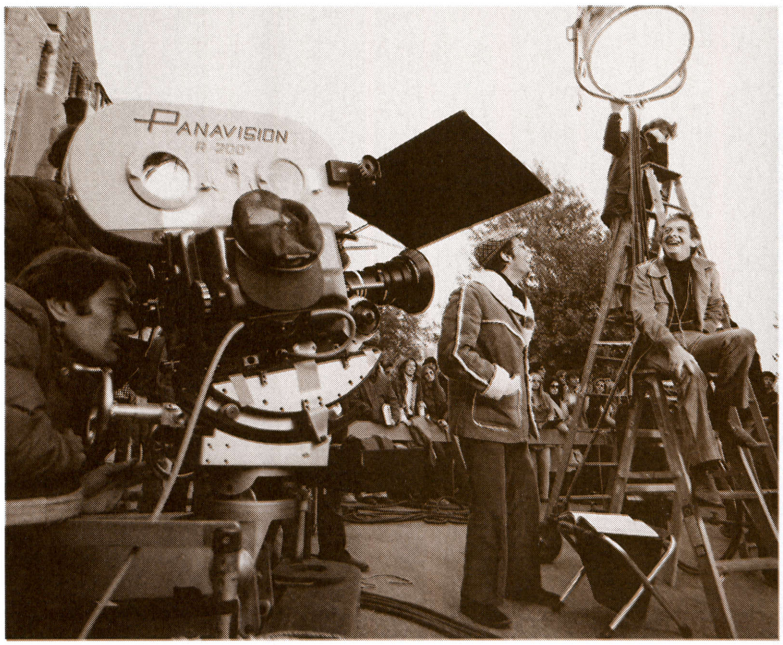


Roizman and actor Max von Sydow share a lighter moment while working within the refrigerated bedroom set. Heavy coats were required, as the temperature hovered below zero in order to make the actors' breath show up under the glare of the hot lights.

Demonic Convergence

Roizman lines up a shot while director William Friedkin (left) jokes with actor Jack MacGowran, who portrays drunken filmmaker Burke Dennings in the picture. Roizman had fun with the "film-within-the-film" sequences, and made a brief cameo with writer/producer William Peter Blatty.

vomiting, a slowly spinning head and a swelling throat mark Regan's hideous transformation. However, Smith's "aging" of von Sydow — who was just 44 years old at the time of filming — is just as impressive. "Dick's makeup was the closest thing to flawless," commends Roizman. "He's a dedicated craftsman and artist, and his makeup was brilliantly conceived, so it wasn't difficult to shoot. I was just careful not to get too openly bright with the light on Max's face. It always had to be angled, but I didn't have to do anything to hide any mistakes Dick might have made."



One particular special makeup effect relied on a simple camera trick. After opening Regan's nightshirt, Karras is shocked to see the words "Help Me" appear as raised letters on her heaving stomach. Roizman reveals that the girl's belly was actually a foam latex prosthetic; prior to shooting, a reactive chemical was painted onto it to create the raised letters. With his camera running in reverse, the cinematographer shot a close-up on the two words, which gradually receded as the chemical evaporated. When the footage was cut into the final film, the plea seemed to mysteriously arise from the girl's flesh.

Also making a brief appearance in the exorcism scene is a frightening phantom that has become known as Captain Howdy, named after the spirit Regan contacts with her Ouija board. With its expressionistic, skeletal features, the specter's visage is briefly superimposed over the girl's own face to suggest the spirit lurking within her. Roizman remembers that this effect was achieved in-camera "with an old trick I learned while doing commercials, using a piece of glass angled 45 degrees to the camera. You'd first position your subject in front of the camera, and then place the element you wanted to superimpose over it to the side against a black background, reflected in the glass. In this case, the element was [stand-in] Eileen Dietz's face in makeup. I then put my lights for Eileen on dimmers; to create the superimposition effect, all I had to do was bring the lights up on her face. By doing that shot live, we saved ourselves an optical. And in those days, nobody wanted to do opticals because of how the image quality would suffer."

Midway through the exorcism, a major lighting change is motivated when the room furiously shakes and one of the two table lamps falls over. "From that point on, one lamp is on the floor and the other is still on the night table," Roizman recalls. "This gave the set an entirely different look for the rest of the exorcism — adding to all of our problems. Friedkin wanted to the room to have a completely different feeling, even though our sources were the same. He wanted it to have an ethereal quality — a soft, glowing, cool look. We tried, at that point, to work with absolutely no shadows in the room, using just bounce light."

Asked if any of the members of the production were disturbed while filming the picture's more patently grotesque scenes, Roizman responds, "I don't think so. If someone is going to have a problem like that, they're going to know it when they're reading the script and doing preproduction. Theoretically, you should be past that stage and just be a professional when you're actually shooting. In fact, Linda Blair was constantly laughing between takes, even while we were doing some of the exorcism scenes. Maybe she was so young that she didn't realize the intensity of the material. I'll have to ask her some time."

For earlier scenes in which Regan is relentlessly examined using all the tools of modern science, the filmmakers utilized locations at the New York University Medical Center. Here, Roizman went bit more extreme with his lighting approach, deciding that this institutional world should be somewhat cold, bright and sterile. "This includes the scenes where the doctors give Regan an arteriogram — sticking a needle into her carotid artery — and examine the brain X-rays," he says. "I wanted to go a bit over the top with bluish, whitish tones."

Given the fact that the Medical Center was a fluorescent-lit environment, Roizman decided to take advantage of the built-in lighting and

merely supplement it with his own fixtures. "I was strictly trained that color temperatures always had to match," he says. "But we just had the standard cool-white tubes, which didn't match anything else temperature-wise. Instead, we'd just take a common fluorescent bank and clamp it to a C-stand. That setup worked fine as a key or fill, because fluorescents generally give off more light than you can see with the eye."

Location sites in Georgetown included the Key Bridge, Georgetown University, the narrow flight of 75 steps at Prospect and 36th Streets that lead down to M Street, the house near the top of the steps on Prospect Street, and Dahlgren Chapel, the last of which provided Roizman with one of his biggest lighting challenges on the show. He explains, "It was a big chapel full of stained-glass windows. Friedkin wanted to show the entire interior in an establishing shot, which required extensive lighting to give the place an 'available light' look." The solution was to utilize the windows, simulating daylight with Brute arcs mounted on 30' parallels.

Scenes shot on the Georgetown University campus included the "filming" of Chris MacNeil's motion picture, during which Blatty and Roizman make fleeting cameos with Ellen Burstyn under the glare of Brute arcs. The cinematographer states with a laugh, "I don't know if anybody really notices it, but I purposely lit that scene to make it *look* lit. Maybe they think I just screwed up! I rarely used lights outside back then, but I just wanted to do something that looked like we were making a 'movie,' so I thought to mount a big arc on a crane with a camera, which we see in another shot. As for my bit part in the scene, I just pantomimed some stuff with Blatty. It was my one brief moment, and I didn't even get screen credit."

The Exorcist contains many indelible images, including the sinister nighttime shot of Father Merrin arriving at Regan's home to perform the exorcism — a sequence shot outside the location house on Prospect Street. Arriving by taxi, the priest pauses outside as a dense fog swirls around him. The mood is further enhanced by an unearthly shaft of light which emanates from the second-floor window of the possessed girl's bedroom and falls upon Merrin's silhouetted figure. "That's the film's signature shot," remarks Roizman, who notes that it also became the film's famous key art. "We spent two nights setting it up. Interestingly, the still photograph used for the poster was taken during a rehearsal. It's a wonderful shot, but that's not the way the scene looks in the movie.

"In my mind, there is no shot in any film that's unimportant. The director may think, 'This is a throwaway, let's move on to something bigger and better.' That's where a director would sometimes have to hold me back to keep me from taking too long, because I want to make every shot perfect."

—Owen Roizman, ASC

"Technically speaking, it's interesting how we had to do the lighting, because Billy insisted that the shade on the window be pulled down. Well, if the shade is down and it's opaque, how are you going to get a shaft of light out of it?"

The wing supposedly containing Regan's room was actually a partial facade added to the location house, so Roizman and his crew had some options in dealing with Friedkin's idea. The cinematographer recalls, "We wound up building a platform behind the window frame, and we put a Brute arc on it. We then backed the shade away from the window about six feet and lit it separately. By putting the arc to one side between the shade and the window frame, I could get a clean shaft of light that looked as if it was coming from the shade — although it was actually coming from between the shade and the frame.

"The shaft didn't quite hit Max von Sydow, though, so I had a 2K lamp put down in the street directly behind his final position and aimed right at the camera — it's actually in the frame. As he stepped into position, we brought it up on a dimmer. That created the aura, or halo, around him.

"When we did the rehearsal — and the still photographer snapped his picture — it was so foggy that you couldn't see this backlight lamp until we brought it up. But as soon as we went for our first take, the wind blew away a lot of the smoke and you *could* see it. After the take, Friedkin asked, 'How's that for everybody?' I said, 'I'd like to do another one. We should get more smoke in here. We lost the feeling of the shaft and the fog…' His response was, 'Ah, it looks great, let's move on.' So we only did one take on that shot because Billy didn't want to do it a second time, even after spending two nights on it."

Fortunately, the take was perfect — *almost*. Roizman remembers, "In the dailies, the 2K lamp was clearly visible *in the picture* before we brought it up on the dimmer. It's right there. My crew and I said, 'Uh, oh,' but nobody else ever noticed it. I never said a word about it, and to this day, nobody's ever said anything.

"In my mind, there is no shot

in any film that's unimportant," he adds. "The director may think, 'This is a throwaway, let's move on to something bigger and better.' That's where a director would sometimes have to hold me back to keep me from taking too long, because I want to make every shot perfect."

The prologue set in Iraq was the last segment of the film to be shot, and after spending the better part of a year working in Georgetown and the stages in New York, Roizman admits that he felt "a great deal of relief" when it was made clear that he would not be joining the skeleton production crew headed for the Middle East. His replacement was director of photography Billy Williams, BSC, who brilliantly rendered the country in blazing desert tones which offered a distinct counterpoint to the overall coolness of the rest of the picture. "I was very pleased with what Billy Williams did," Roizman says. "It was different from what I'd done, which was just the way it should have been."

Unfortunately, due to his commitments to a subsequent picture, Roizman was unable to do the color timing on *The Exorcist*, and didn't see a final print until the film's premiere. "Billy did a wonderful job of overseeing the timing," he maintains. "I was very excited by what I saw." The cinematographer adds, however, that at the time, because color-reversal internegatives were used to make release prints, "the only really good prints came from the original negative — the others were really a crap shoot. Sometimes you got lucky, but sometimes…"

After opening in limited release on December 26, 1973, *The Exorcist* became a huge popular success and played for months on end, grossing over $165 million domestically ($416 million when adjusted for inflation) during its initial run. A $12 million, major-studio production, the film almost single-handedly lifted the horror genre out of the low-budget dungeon where it had languished since the heyday of Universal's *The Phantom of the Opera, Dracula* and *Frankenstein.*

Among its many honors, *The Exorcist* earned 10 Academy Award nominations, including nods for Best Cinematography and Best Picture. However, the film only earned Oscar statuettes for Best Adapted Screenplay (William Peter Blatty) and Best Sound (Robert Knudson and Chris Newman).

For the film's 1979 re-release, 70mm prints were struck in order to take advantage of the stereo sound processes that were then only available in that format. Roizman was not able to oversee the blow-up, and recalls with a laugh, "I just went to see

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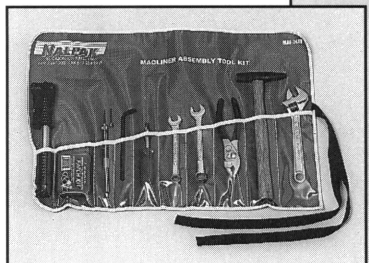

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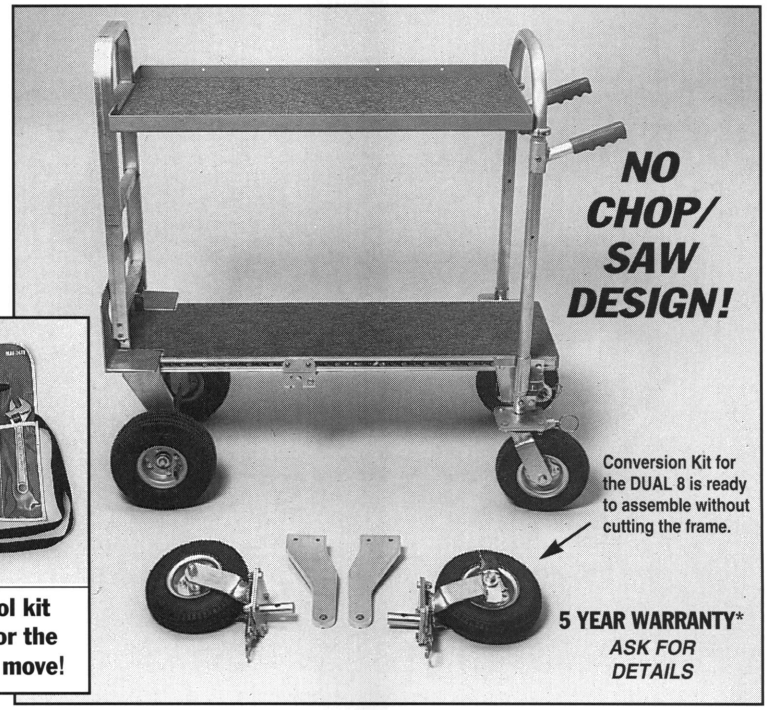

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it at the theater as another Joe Schmoe in the audience."

Questioned about the condition of *The Exorcist's* original negative, Roizman responds, "I don't think it's been mishandled, but it isn't in very good shape. The 35mm print we screened at the Chinese Theater was done at YCM in Burbank, but it had to be made from the original negative because the dupe negative that had been made some time ago was a disaster. Unfortunately, the original has a lot of dirt, tears and scratches, but it's scheduled to be restored by YCM, and a new dupe negative will be made.

"The print we used for the recent screening was not a final approved print," he notes. "Both Billy and I had a lot of notes regarding corrections that still had to be made, but because of time considerations we went with what we had. Fortunately, the print was pretty good; it looked close to what it should look like."

Asked to assess his working relationship with Friedkin, whose tempestuous nature has been explored in several "tell-all" books about 1970s Hollywood, Roizman offers, "There was a chemistry there for producing good work. I always felt as if I contributed a tremendous amount to the two pictures we did together. I have always thought of myself as sometimes being a pain in the ass to a lot of directors because I would get into their area by making comments about the performances and suggestions about shots. A lot of directors wanted to make all of those decision themselves, but my feeling was, 'I'll make the suggestion and they can take it or leave it.' At the same time, Friedkin made major contributions to what I was doing — by letting me do my work and encouraging me to do my best." ■

A Warner Bros. *release; a* Hoya Production; *directed by* William Friedkin; *executive producer,* Noel Marshall; *produced by* William Peter Blatty; *associate producer,* David Salven; *screenplay by* William Peter Blatty, *based on his*

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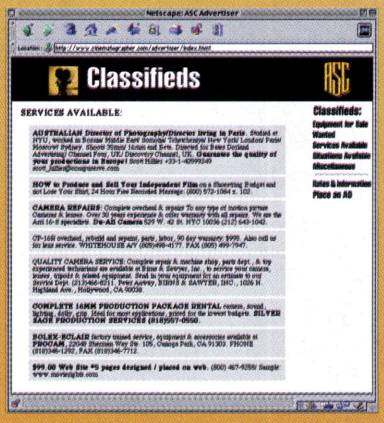

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Chris MacNeil, Ellen Burstyn; *Father Lankester Merrin,* Max von Sydow; *Lt. William F. Kinderman,* Lee J. Cobb; *Sharon Spencer,* Kitty Winn; *Burke Dennings,* Jack MacGowran; *Father Damien Karras,* Jason Miller; *Regan MacNeil,* Linda Blair; *Father Dyer,* Rev. William O'Malley, SJ; *Dr. Klein,* Barton Heyman; *clinic director,* Peter Masterso; *Karl,* Rudolf Schündler; *Willi,* Gina Petrushka; *Dr. Taney,* Robert Symonds; *Psychiatrist,* Arthur Storch; *President of University,* Rev. Thomas Birmingham, SJ; *Karras' Mother,* Vasiliki Maliaros; *Karras' Uncle,* Titos Vandis; *Bishop Michael,* Wallace Rooney; *Mary Jo Perrin,* Donna Mitchell; *Jesuit Decan,* Roy Cooper; *Senator at Party,* Robert Gerringer; *Bellevue Nurse,* Yvonne Jones; *Subway Vagrant,* Vincent Russell; *The Demon* (voice), Mercedes McCambridge; *Captain Howdy/Regan* (stand-in/stunts), Eileen Dietz.

This article contains material from an interview that previously appeared in AC *Feb. 1974. The author thanks film historian Trevor Wilsmer for his enthusiastic support.*

New Products

compiled by Andrew O. Thompson

A New Direction for Dollywork

During production of *The Lost World,* director Steven Spielberg mapped out a dolly shot which presented a particular challenge for key grip Jim Kwiatkowski. "While shooting at an exterior location, Steven was blocking a scene as he moved forward," Kwiatkowski recalls. "But when he got to a certain point, he started moving to the left. I told him that we certainly could do the shot, but that we would have to lay down dance floor to even out the rugged terrain. Steven didn't want to take the time to lay the floor, though, so we ended up doing the move in two shots [with traditional track]."

Spielberg later asked Kwiatkowski if was possible to construct a switching junction for dolly tracks similar to those used on train tracks, which would have allowed the director to make his intended move without resorting to the use of a dance floor. Intrigued, Kwiatkowski began to brainstorm with Peter Makei, the Australian designer of the Precision dolly track, and Paul Holt, who helped popularize Precision track into the United States. He recalls, "We had numerous conversations and made drawings of a proposed system, which we designed around a PeeWee dolly and the Precision dolly track. We chose the PeeWee because they're available all around the world and are pretty consistent in terms of their construction. Peter then built a prototype of what we call the Switcher Track, which we took to Steven's house for a demonstration. Steven absolutely loved it and wanted us to make three more!"

Designed for use at the junction between two perpendicular lengths of dolly track, the "switching" section features four drums inserted in-line. Each of the drums is independently mounted with short lengths of rail. As the moving dolly's wheels hit the center of the drums, the dolly grip crabs in the continuing direction, which simultaneously pivots the drums 90 degrees, smoothly marrying their individual rail sections to the linking track. The dolly can then progress in the new direction. "It's important for the dolly grip to hit the proper mark on the drums," Kwiatkowski explains. "If you're a bit too far forward or back you can get a little wobble while crabbing the dolly, although you may not see the wobble through the lens."

Although most of Spielberg's latest film, *Saving Private Ryan,* was shot with handheld cameras, the director relied on the Switcher Track for a few complicated moves. In one, Captain Miller (Tom Hanks) and his squad enter a field littered with demolished D-Day invasion gliders. "The Germans had installed posts and wires in some open pastures, and they tore the planes apart when they tried to land," Kwiatkowski explains. "Our shot began as Miller and the troops move through the surrounding forest. We dollied toward the actors through the trees. When the soldiers come out of the trees, the camera meets them at a crashed glider. As they continue walking by the glider, the dolly switches onto another track and moves to the right as they inspect the aircraft and ask some soldiers about the whereabouts of Private Ryan."

Camera operator Mitch Dubin elaborates, "Normally, when you lay down track, you can only dolly in one line of direction, and all of the action has to be staged around that line. But with the Switcher Track, we were able to do some walk-and-talk sequences in which the actors turned and went in a different direction."

Since the Switcher Track's trial by fire on *Saving Private Ryan,* Kwiatkowski has made refinements to its patented design, and is in the process of making the product available to the film industry.

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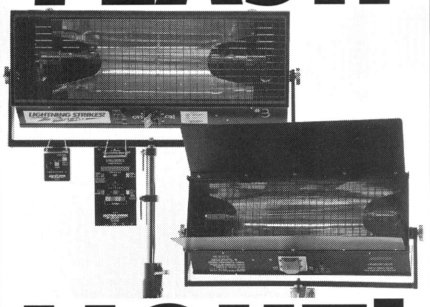

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lamp features eight tubes and has nearly the same surface lighting area as a 10-tube Wall-O-Lite. Like the popular 4Bank system, the Flathead 80 and has a removable center mount arm on the back and is operated by a pair of remote 4Bank ballasts. The new light can be controlled in half f-stop increments and is fitted with special "card holders" at each corner for mounting foamcore cutters, hanging black cloth or rigging the unit to a ceiling; special receivers will also accept Image 80 barn doors. The Flathead 80 puts out as nearly as much light as a Wall-O-Lite, yet weighs only 24 pounds — roughly half as much as the latter fixture. The Flathead 80 system comes complete with a fixture (which includes the head, silver louver and gel frame), a pair of 4Bank ballasts, two 4Bank head extensions, and a mounting plate. A special carrying case is offered as well.

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Arriflex introduces the new Single Frame Unit for use with its 435 camera system. The unit offers easy and accurate control of single-frame and time-lapse exposures, and consists of two components: the Hand-Control Unit and the Integrated Capping Shutter door. The Hand-Control Unit performs an array of functions with several different settings, such as exposure-time settings from 1/8 of a second to 999 seconds; intervalometer operations from 1 second to 99 hh and 99 minutes; and exposure bursts settings from 1 to 99. It also features an automatic control of the Integrated Capping Shutter, signal output for an external capping shutter, signal output to activate a flash, and an external light meter pickup.

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OpTex announces the availability of their new Multi-Coated Wide Angle Adapter Sets for Canon's 16x 5.5mm zoom lens, as supplied with the new Canon XL-1 Digital Camcorder. The set is consists of two adapters. The 0.7x Wide Angle Adapter achieves an increased image coverage of 30 percent. This effectively converts the 16x lens to a 3.85mm lens with a fixed angle of view. A Super Wide Angle Adapter is then attached to the 0.7x adapter to give an increase in coverage over the original field of view of approximately 50 percent, effectively shortening the minimum focal length to 2.75mm lens with a fixed angle of view.

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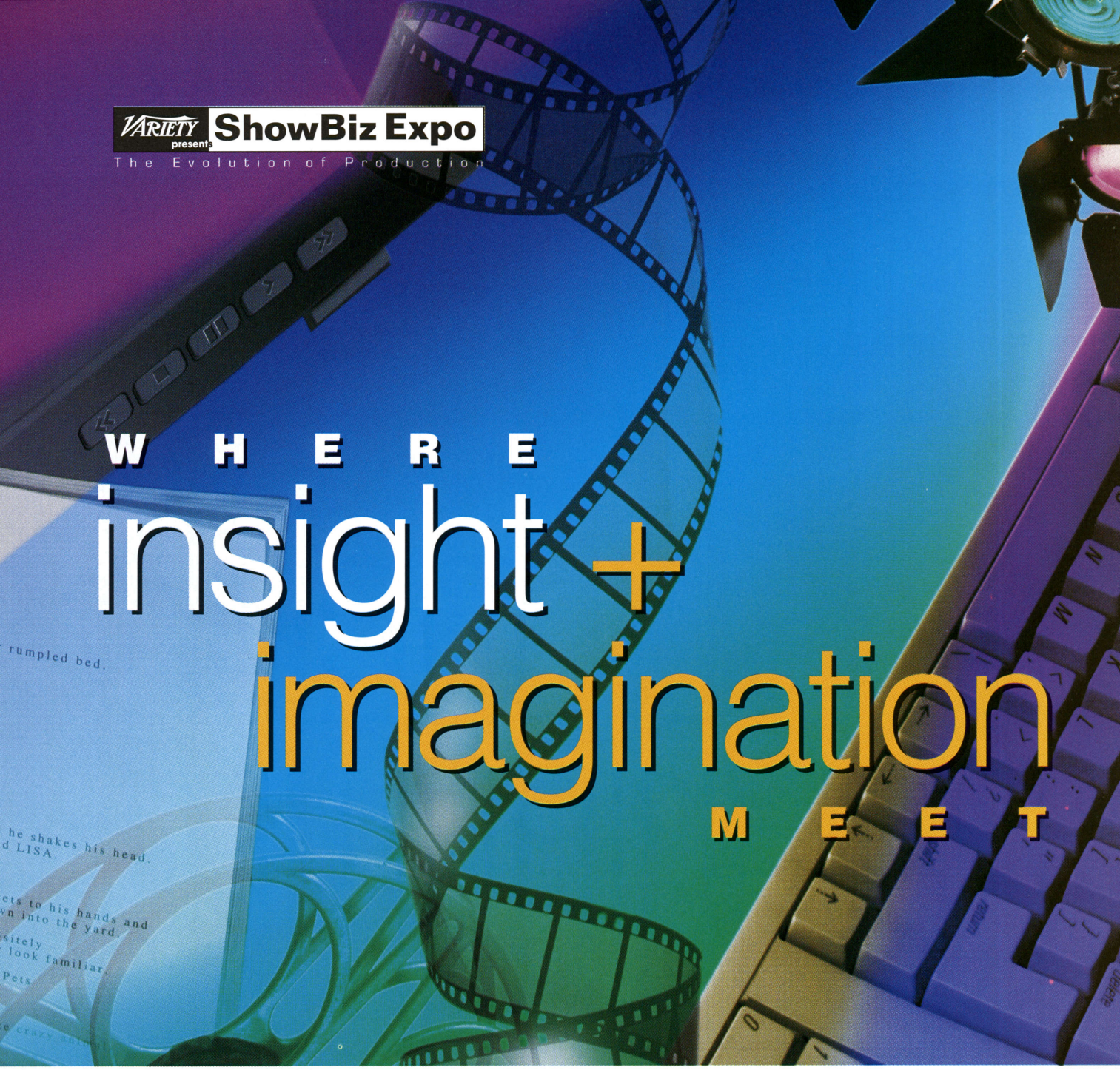

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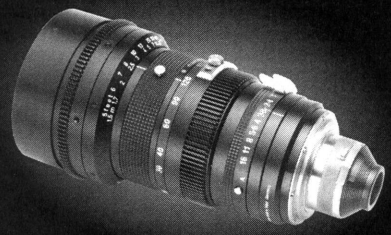

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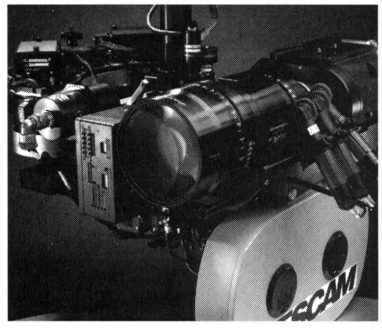
New Mattebox

Chroszeil is offering a new wide-angle mattebox system and a sunshade designed specially for the Fujinon 10x 4.8mm lens. The mattebox is available in two version — 4:3 or 16:9. The filter stage incorporates two combination filter holders. The first is for use with 4" x 4" or 4" x 5.65" filters, while the second is a rotating filter holder for use with 5" x 5" or 4" x 5.65" filters. A 95mm rubber bellows ring allows a third round filter to be used for all but the extreme 4.8mm wide-angle position. Features include a French flag and a bracket that allows +/- 3mm for precise fitting at the lens; an insert ring for other lenses is available separately.

The Sunshade for Fujinon's 10x 4.8mm lens features the same housing as the matte box, a clamp ring, French flag and filter holders. A 95mm step-down ring and additional step-down rings for other lenses are also available separately.

Band Pro Film/Video, (818) 841-9655, fax (818) 841-7649, e-mail: bandprovid@aol.com.



New Wescam Gear

Wescam unveils its latest film system — the Wescam F118. While re-engineered for improved performance, fewer components make it more streamlined and efficient than previous models. Magazine and lens changes take half the time than with the original system, and are more flexible. A quick-release dome and window also cuts time on setups and changes. With its increased lens options, the Wescam can fly with a Panavision 11:1 Primo lens for greater zoom capabilities.

Some recent Wescam credits include *Armageddon, Deep Impact, The Truman Show,* and the upcoming *Ed TV.*

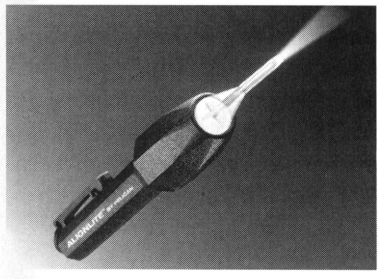
Wescam, (818) 785-9282, (800) 458-3417 (on East Coast) or (905) 689-2875 (Canada); fax (818) 785-9787.

New Bogen Products

Bogen's Roll-Pod provides videographers and still photographers with a quick way to move their tripod and camera equipment over troublesome terrain. Designed by Precision Prototype, the Roll-Pod consists of an aluminum alloy frame with 16" wheels and pneumatic tires, plus a rugged handle for maneuvering the device. By raising the handle, the tripod and camera roll easily; lowering the handle places the tripod back on all three of its feet. Camera bags, monitors, battery packs and a host of other accessories can be attached to the tripod frame with the Manfrotto Super Clamp System.

The company also presents a dual-purpose, three-riser aluminum light stand that can be quickly and easily converted into a counterbalanced lighting boom stand. It features a pivoting collar and wing handle that allows the top two stand extension to be used as a telescopic boom arm.

Bogen, (210) 818-9500, fax (201) 818-9177, website: www. bogenphoto.com.



Illuminated Alignment Tool

Pelican Products' Alignlite makes it easy to see and access small electronic components in limited light. The 6,000-candlepower Xenon beam lights up the darkest areas of an electronic equipment chassis. When the tool is detached, the instrument can be used as a pocket light. It's submersible to 500' and is FM-, CSA-and CENELEC-

approved. Made of chemically resistant Xenoy, it includes two different sized Alignment tool screw tips, two AAA Energizer batteries and two vision aid lenses (red/blue/green).

Pelican, (310) 326-4700, fax (310) 326-3311, website: www.pelican.com.

New SpaceCam Mount

SpaceCam Systems now offers the QuickSide Mount for use on Astar and Twin Star helicopters. This mount can be used in conjunction with the NoseMount and allows for a five-minute, on-location changeover in positioning of the system to and from the nose and the left or right sides. The unit has full STC approvals in the U.S. and Canada, and was used recently in Perris, California when SpaceCam teamed up with director Jan De Bont, ASC to photograph a Coca-Cola commercial. While filming skydivers jumping out of a DC-3 aircraft, system designer Ron Goodman operated the SpaceCam on the nose position of an Astar flown by Craig Hosking, shooting straight ahead while following the plane. After landing and quickly switching the camera to the side-mount position, Goodman and Hosking then flew ahead of the DC-3 an shot backwards to capture the front of the plane and a completely different angle.

SpaceCam Systems, (818) 889-6060, fax (818) 889-6062.

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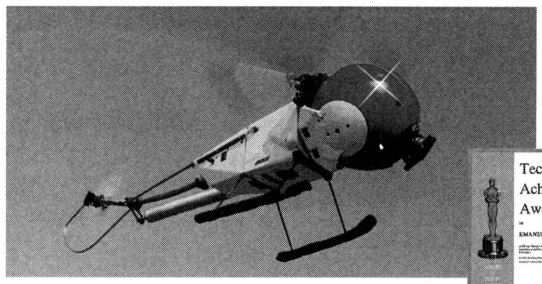

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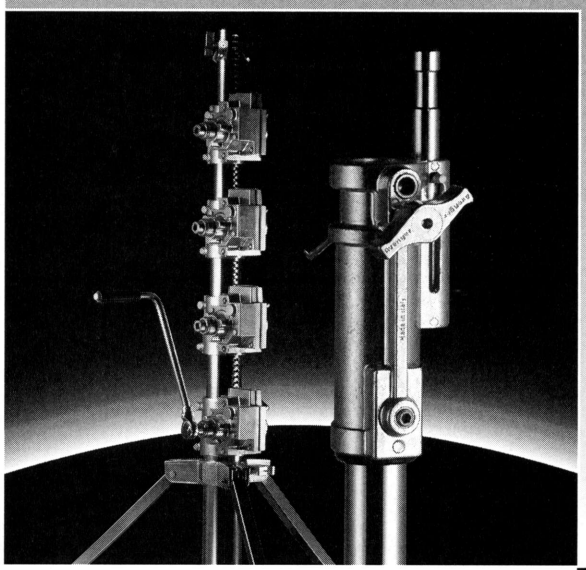

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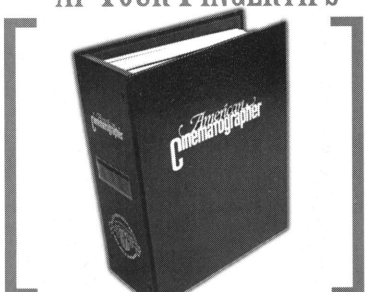

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Hands-Free Video Display

Optics 1's new E-Z View head-mounted display (HMD) places hands-free video information comfortably in front of the user wherever he or she turns. Like the company's PT-01, the E-Z View replaces conventional CRT equipment and small, handheld motors.

Weighing approximately 11 ounces, the monocular design and ergonomic features permit the user to view with either eye, or swivel the unit over the head and completely out of the way. The device provides a full-color, widescreen image, and is compatible with eyeglasses. The E-Z View has low power consumption (1.5 to 2 average watts) and is available in either NTSC or PAL. The sheltered LCD-based display module — 800 x 225 total pixels — and eyecup make it easy to view the image outdoors or in very bright locations.

Optics 1, (800) 538-3008, fax (805) 373-8966, e-mail: mail@optics1.com; website: www.optics1.com.

Electronic Projection Apparatus

Digital Projection announces its latest series of Power Displays designed for large-venue presentation, entertainment and multimedia projection. The engineering concept behind the compact design of both the Power 3dv and 3gv was to develop a chassis at a fraction of the size of their original models, thereby increasing mobility and application flexibility. The Power 3dv (data/video) is based on Texas Instruments' Digital Light Processing (DLP) 800 x 600 Digital Micromirror Device (DMD). The three-chip design — utilized in all of the company's Power displays — is further advanced by the company's optical, signal processing, and illumination systems. As a result, it easily achieves 2,500 ANSI lumens.

The compact Power 3gv (graphics/video) is based on three-chip 1024 x 768 DMD design for advanced video and computer-oriented applications. It produces greater on-screen resolution and 3,000+ ANSI lumens of light output.

Also available with these new Power displays are advanced video-decoding technology by Faroudja Laboratories, a motorized lens mount providing significant horizontal and vertical image shift and installation flexibility, and exclusive Xenon lamp technology pre-targeted for fast and simple lamp replacement.

Digital Projection, (770) 420-1350, fax (770) 420-1360, website; www.digitalprojection.com.

New Audio Packs

Kata introduces the Koala Mixer case and the Panda Sound Organizer Pack, both of which are designed to organize essential sound equipment while keeping it close at hand. The Koala Mixer features a main pocket which houses the mixer/DAT and connectors. Cables stay tangle-free when stowed in the bottom storage area and are fed through handy connection ports. An expandable sleeve allows the operator to select the desired cable length. The front pocket provides ample room for wireless microphones and a power supply unit. A zippered compartment holds batteries, spare cables and a videocassette. Zippered clear vinyl side panels protect equipment while facilitating access to controls and displays. For extra protection, Koala provides a detachable vinyl top and optional rain hood. The padded strap lends itself for carrying on the shoulder or across the chest. The optional Opposite V Harness (OH) is designed to

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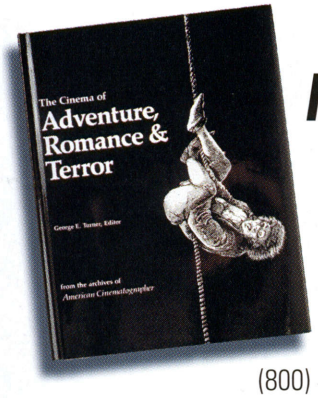
Among films featured: *The Hunchback of Notre Dame, The Bat, Wings, Bulldog Drummond, All Quiet on the Western Front, Dracula, Frankenstein, Creation, Tarzan, The Monkey's Paw, The Most Dangerous Game, White Zombie, The Lost Patrol, Bad Lands, The Black Cat, Crime Without Passion, Flash Gordon, Gunga Din, Cat People, Laura, Out of the Past, Rope, D.O.A., Night of the Hunter.*



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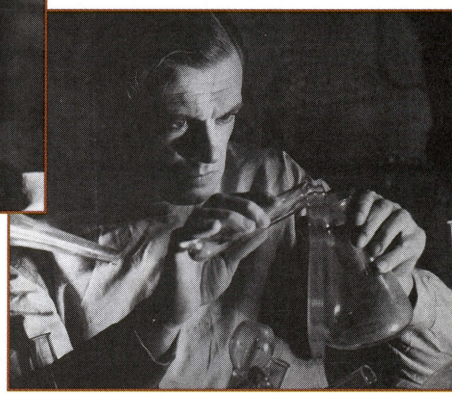
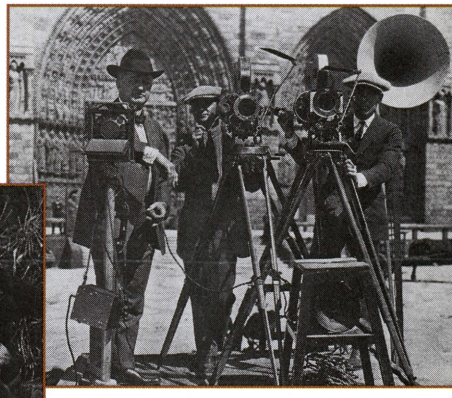
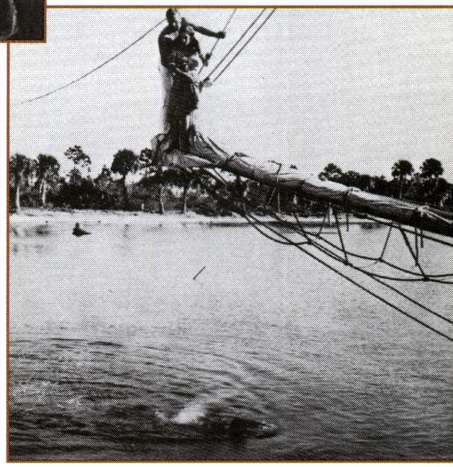
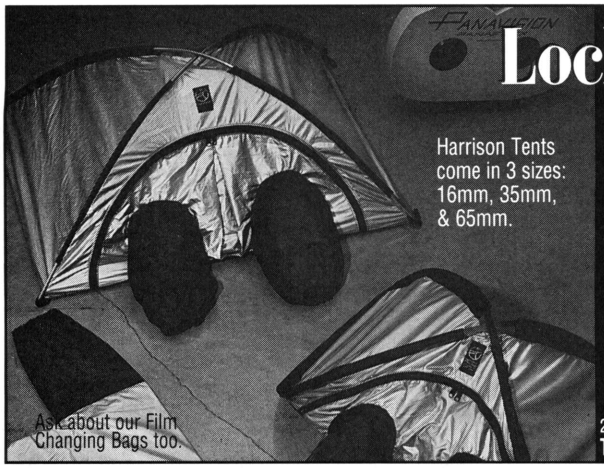
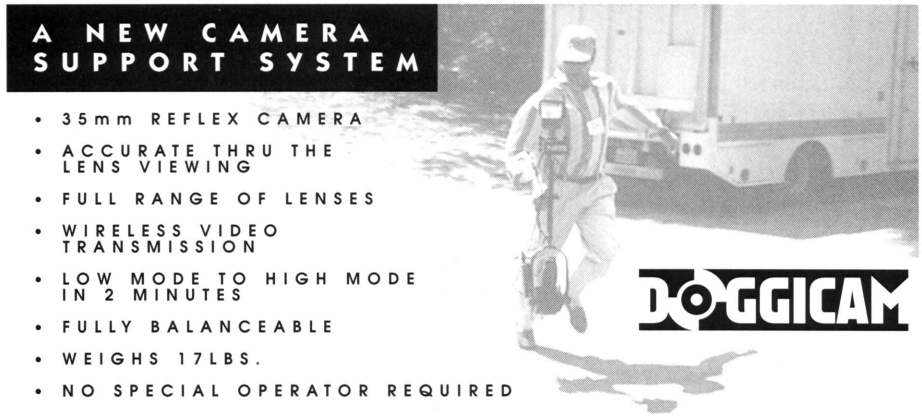
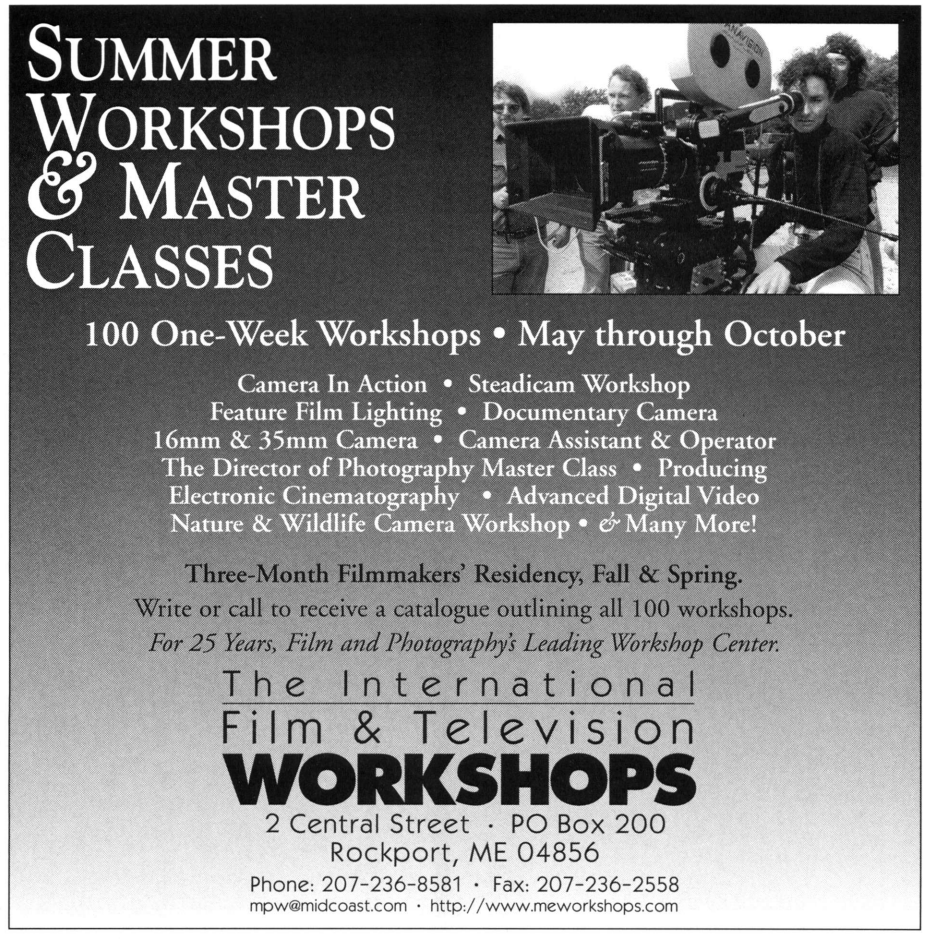












carry the Koala in front. By distributing the weight between shoulders and hips, the ergonomically designed OH promotes comfortable working without risk of neck aches.

KATA's Panda Sound Organizer is designed to arrange and store all the audio equipment needed for on-the-move sound work. The padded Panda is divided into two sections: the top compartment can hold a fully-loaded Koala; the bottom section is ideal for accessories such as spare cables, batteries, microphones and headsets. Full-length zippers make for quick access. External mesh pockets and a connecting strap hold a Zeppelin and boom.

The Panda may be carried with the shoulder strap or backpack style via hide-away backstraps. The Koala, meanwhile, may be worn in front and attached to the Panda's backstraps, leaving both hands free.

KATA, (818) 841-7297, fax (818) 841-7299, e-mail: katacase@aol.com.

16mm Director's Finder

Kish Optics introduces Ultimate's Director's Finder, which is specifically designed for the 16mm and Super16 formats. Modeled after the company's tool for 35mm motion pictures, this unit features interchangeable mounts to accommodate all leading lenses, multiple ground glasses, and an optional Video-Tap powered by an on-board battery. It also features high-quality optics for the truest possible images and may be configured to accommodate Arriflex PL, Panavision, BNCR and Nikon lenses. Finders come with multiple camera-type/format-type ground lenses, and a comfortable, adjustable handle which may be folded for tripod mounting. The optional ½" CCD-ready B&W or color video-tap provides in-the-view-finder images that are "full-frame." The video-tap may be powered by on-board batteries or an external source.

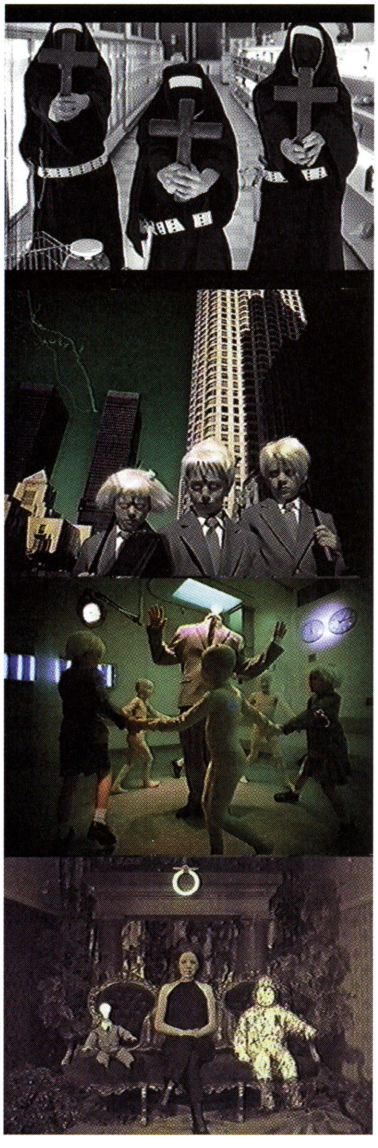
Kish Optics, (818) 506-5800, fax (818)506-5856. ■

Points East

Pushing the Envelope

by Eric Rudolph

Italian-born director/still photographer Andrea Giacobbe's video for the rock band Garbage's single "Push It" plays like a series of his nightmarish fashion and celebrity stills which have sprung disconcertingly to life: a gang of armed, black-masked nuns stalk lead singer Shirley Manson through a supermarket; garishly exaggerated, *Children of the Damned*-like kids menace a skittish man who has a glowing lightbulb for a head; bikini-clad sylphs emerge from tubs of goo; and children ride on the backs of their bridled parents. The clip's lighting is hard and sickly, its imagery is quite distressing, and no one ever smiles.



If Giacobbe's unsettling work had to be described in one word, "dreamlike" would do, though others might find the term "night terrors" more apt. "I'm attracted to certain themes and aesthetic styles more than others," says the 30-year-old director. "Notions of sex, death, fertility, procreation and duplicity are themes that reoccur in my work."

Giacobbe grew up in Florence but attended high school in the United States. After finding university-level architecture school in his homeland to be too restrictive, he set off to London to become a musician. His introduction to photography came when he sought more interesting part-time work than folding jeans all day long in a clothing store on London's High Street. "The chance to assist in a photography studio was nothing more than a better way to get by," he remembers. "It took several months before I thought about actually being a photographer. When I finally saw the creative potential of the medium, I enrolled in the Bournemouth College of Art and Design. There, I realized that I benefit from having grown up in the highly visual culture of Florence. I had immense visual baggage from childhood that I was not consciously aware of, and a certain sense of structure, balance and composition. I didn't have to learn those

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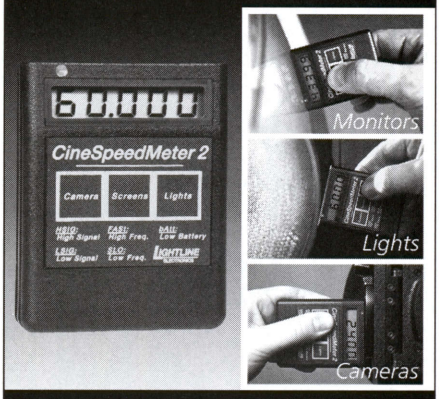

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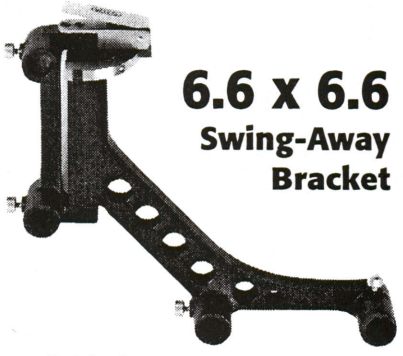

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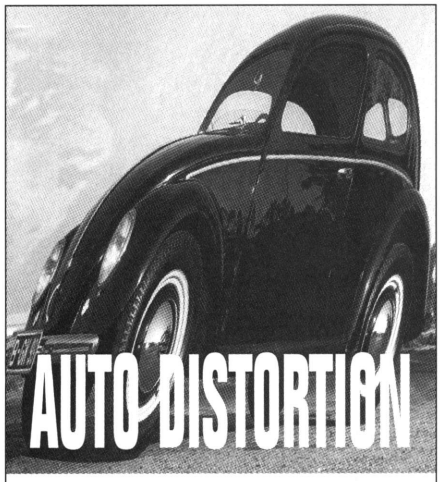

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ABCs, because I already had absorbed a lot of them during my upbringing."

Now kept busy creating disturbing still images for such youth-oriented pop culture magazines as *The Face* and *Detour,* as well as advertising clients, Giacobbe chooses to direct videos only when a project allows an opportunity for his imagination to flow. "I had complete freedom on my first video, 'Dirt,' for the group Death in Vegas. The only requirement was that I use the song," he says. Collaborating with Garbage leader Butch Vig (best known as the producer on Nirvana's breakthrough disc *Nevermind*) and singer Manson was somewhat different. "I had to negotiate with them. Butch asked me questions about why I wanted the children riding on the backs of their parents. All I could say was, 'If you'll give me a gift certificate for 10 years of psychotherapy, maybe I'll be able to tell you!' I write these ideas down and they make sense in a mysterious way."

Though the director readily acknowledges the dramatic limitations of commercials and music videos, Giacobbe is happy to continue working in the medium as long as he can be subversive. "Most music videos are like commercials — after all, they are vehicles to sell records. I'm happy to work within those constraints, but only if I can change the way that the video meets those requirements."

As a professional still photographer who until recently set up all of his own lighting fixtures, Giacobbe also finds that working with a director of photography often requires a delicate touch. "I need a cinematographer who has a good attitude, because I decide what light ends up where, and I have precise ideas about how to use the camera — there's a natural tendency for friction to develop. I find myself saying, 'This is what I think we should do,' when I really want to just do it."

Aided by American cameraman Olivier Malikin, Giacobbe shot the "Push It" clip primarily on 35mm, but he also employed a good deal of 16mm emulsion and a smattering of Super 8 stock. Working with a $350,000 budget, the filmmakers worked shot for four days in Los Angeles. When the production began to run out of money, Giacobbe contributed most of his own fee to the budget in order to fully realize his vision.

Giacobbe's crazy-quilt of ideas and images seems to result from an affinity for the subconscious, but he always keeps one eye on the real world. "My work is somewhat oneiric," he suggests, evoking the Greek goddess of dreams. "But I always try to lend the imagery a hard edge, because reality is hard. When you get hit in the face in a dream, nothing really happens — you might wake up panting, but you're okay. That is not so in reality." Interestingly, the director does not use storyboards while shooting, but instead relies on notes scribbled on the back of his hand.

Religious imagery commonly recurs in both Giacobbe's videos and still photographs. This is partly a personal aesthetic choice, but the references are also a means for the him to keep in touch with the tenor of the times. In a roundabout way, Giacobbe suggests that his use of such images (e.g. crosses fashioned from glowing fluorescent tubes) may help him to get his ideas across to today's angel-obsessed and spiritually hungry masses.

Attempting to explain the surreal tone of his visions, Giacobbe points to a worldwide social trend he has come to observe: "I see the global consciousness being flooded by the global unconsciousness. Our collective unconscious is taking on more space and power in our society — in our relationships with each other, our environment and ourselves. I don't know why this is happening, or if it is good or bad. But I need to make certain that my work reflects what I see happening around me, and that I interpret it in a way which is as personal and descriptive as possible." ■

Books in Review

by George Turner and David E. Williams

A Girl and a Gun: The Complete Guide to Film Noir on Television
by David N. Meyer
Avon, 304 pps., paper, $14

This latest look at film noir is a handy guide in which 102 select movies are given succinct reviews of about two pages each. A long introduction does a fair job of untangling the web of rules for what truly constitutes film noir, as formulated by French critics Raymond Borde and Etienne Chaumeton in the influential 1955 article "Panorama du Film Noir Americain." Americans, with our curious predilection for pigeonholing everything, latched onto the idea with gusto and thus launched yet another specialized genre and a thousand arguments.

Publishers love to append words like "complete" and "definitive" to book titles and blurbs, usually to the embarrassment of the writer. Author David Meyer obviously intended this as a selective work embracing his choices from the many pictures that can be considered as noir. The examples are well-chosen, although a few of the omissions are puzzling. Fritz Lang's 1930 German masterpiece *M* is offered as an isolated case of pre-noir. That's fitting, but then the chronology leaps ahead to 1941's *The Maltese Falcon,* pointedly ignoring the previous year's *The Stranger on the Third Floor,* a far more fully-blown noir film than *Falcon.* Another curious omission is *Phantom Lady* (1944). Similarly, the "complete film credits" consist of five or six players, director, "camera," and writers.

The synopses and comments are sharp and show some insight into filmmaking. It's also refreshing to see cinematographers given their due as major contributors whose distinctive visuals are vital to the noir genre. Meyer waxes eloquent about the "ferocious shadows" effected by Milton Krasner, ASC in *A Double Life* (1937); John F. Seitz, ASC's "numerous astounding tracking shots" in *The Big Clock* (1948); and John Alton's "ornate, almost impenetrable compositions" in *Raw Deal* (1948). He is surprisingly tough on some widely respected pictures such as *DOA* (1950), *I Wake Up Screaming* (1942), *The Naked City* (1948) and *T-Men* (1947). Oddly, many pictures are noted as being "dated," a consideration one should accept as a given when dealing with movies made more than a half-century ago. Maybe you had to be there.

All in all, the book is fun to read, to look at, and, sometimes, to argue with — scanning its pages is rather like talking about movies with a friend. — G.T.

Do You Want It Good or Tuesday?
by Jimmy Sangster
Midnight Marquee,
240 pps., paper, $20

Hammer Studios was a small but astonishingly creative British production house whose films have gained an almost fanatical following that has grown during the company's postmortem years. Headquartered in an old country mansion transformed into a studio, the company pumped out a large variety of films of all kinds. What really hooked its customers, however, were a string of horror pictures made from 1957 into the 1970s, many of them based on Gothic themes previously explored years before at Universal.

A key figure at Hammer was Jimmy Sangster, who spent 32 years

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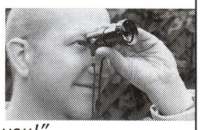

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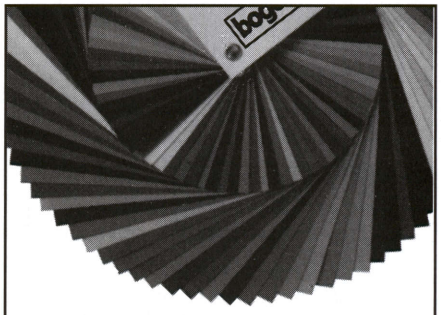

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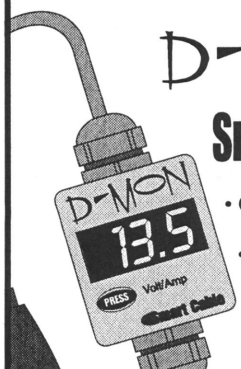

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with the company, beginning in 1949 as a second assistant director. In 1957, he became a screenwriter with *X The Unknown*, a sophisticated ancestor of the "blob" picture, followed immediately by *The Curse of Frankenstein*. Done inexpensively, the remarkable *Curse* looked as though it cost millions thanks to imaginative sets and period costumes, superior color photography by Jack Asher, and a fine stage-trained troupe headed by Peter Cushing and Christopher Lee. Even better was *Dracula* (known as *Horror of Dracula* in the U.S.), which again featured superior performances by Cushing and Lee, and displayed astonishing production values. Bolstered by their success, Hammer's assembly line continued with such films as *The Mummy; Brides of Dracula; The Revenge of Frankenstein; Dracula, Prince of Darkness* and more.

Sangster was also busy writing the kinds of stories not intended to scare people's pants off (for Hammer and several other companies) and also made his mark as a producer, director, story editor and novelist. He eventually emigrated to America, where he flourished in the TV and movie market. But, as he says up front, "The only part of my life that anyone is really interested in is my 'Hammer Gothic' period. There was a life before Hammer and there most certainly has been a long, happy, productive life since, but I'll try to keep both of those periods short."

Actually, even an unabashed Hammer fan should enjoy reading about Sangster before, during and since.

— G.T.

***Titanic* and the Making of James Cameron**
by Paula Parisi
Newmarket Press, 234 pps., hardback, $24.95, paper, $14.95

Although *Titanic* brought director James Cameron fully into the general public's eye for the first time, his diplomatic shortcomings are largely self-admitted and well-documented. This tome by former *Hollywood Reporter* veteran Paula Parisi re-examines this volatile yet artistic persona, offering plenty of insight on Cameron's background and motivations, but she draws some questionable conclusions based on incomplete reportage. These unsubstantiated moments are generally constructed to support her apparent thesis that Cameron is the most driven, ruthless and autocratic perfectionist to ever hit Hollywood.

The most egregious of these entries regards cinematographer Caleb Deschanel, ASC, who photographed the present-day portions of *Titanic* in Halifax, Nova Scotia, and his eventual replacement by Russell Carpenter, ASC, who handled the picture's period sequences. While this reviewer will not pretend to offer a thorough account of the situation leading up to Deschanel's departure, Parisi primarily documents it with an offhand (and derogatory) quote from Cameron that hardly answers any questions. No opinion or information from Deschanel or any other member of the production is offered.

Carpenter is then introduced, paraphrased as saying that in the time immediately after his experience with Cameron on *True Lies* he would have declined to work with the director again. While Parisi notes that the cameraman and director subsequently teamed for the 65mm production *Terminator 2/3-D* and the preproduction photographic tests for *Titanic*, she fails to mention that Carpenter had very much wanted to shoot the film from its inception, and was disappointed to hear that Deschanel had landed the job. By omitting this fact, Parisi implies that Carpenter didn't want to work with Cameron again, but basically had no choice in the matter. This was not the case.

However, Parisi excels in documenting *Titanic*'s evolution from a high-concept premise to the biggest film of all time, carefully building up the dramatic layers of inspiration, creativity, compromise, and triumph. She equally manages to realistically convey what a $200 million budget is spent on — something the mainstream press failed to do despite their relentless attacks on the

film's accounting. (Sadly, it seems the only way many of these publications *can* discuss the filmmaking process is in terms of money: what a picture cost and what it made at the box office.)

Though written in a style that would be palatable for lay people, the book contains a significant amount of useful technical detail, drawn heavily from Parisi's first-hand reporting direct from *Titanic*'s sets and the principals' workplaces. A selection of choice color photos helps greatly in this regard. Most impressive are the descriptions of Cameron's deep-water excursions to the actual wreck (drawing from the director's personal dive journals), as well as the accounts of his brother Mike's involvement in building the special camera gear used during these descents. However, production hardware is sometimes identified but neither fully explained nor described in operation. Film professionals will be able to infer their use, while others will simply skip past what seems to be mere technobabble.

In all, Parisi offers a generous and often candid look into *Titanic*'s often turbulent production — including an infamous incident in which the cast and crew were fed PCP-laced chowder — as well as the ponderous nature of big Hollywood productions in the Nineties. Still, it's doubtful that a single book could ever capture or convey the full realm of the self-described "King of the World."

— D.W.

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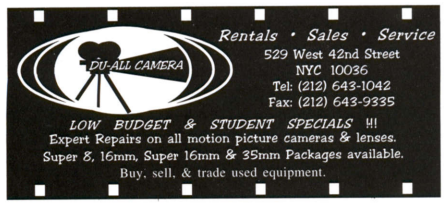

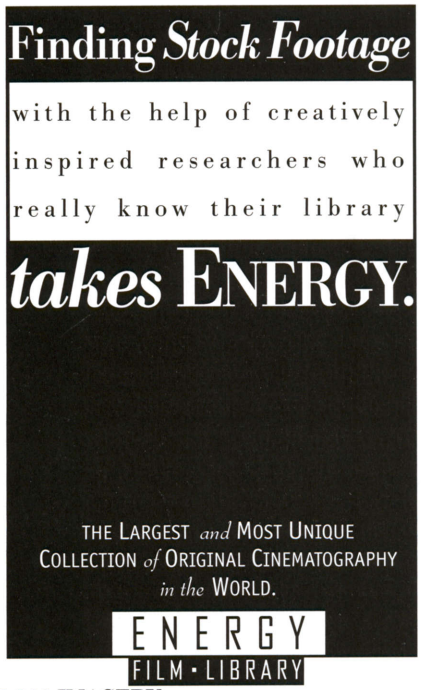

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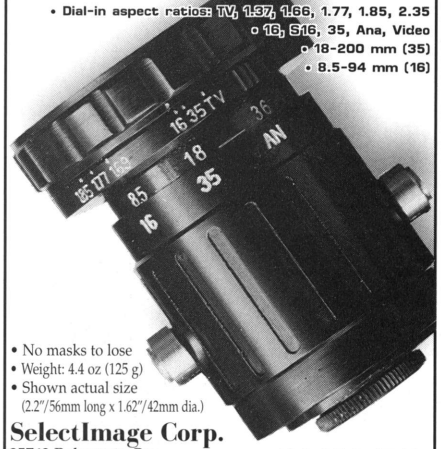

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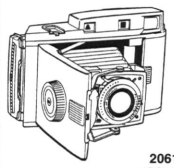

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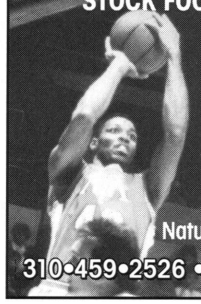

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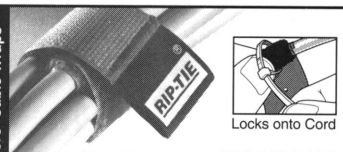

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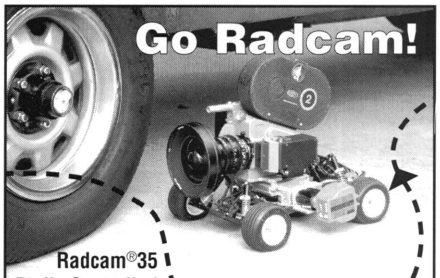

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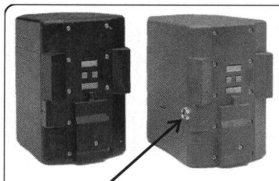

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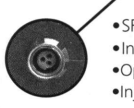

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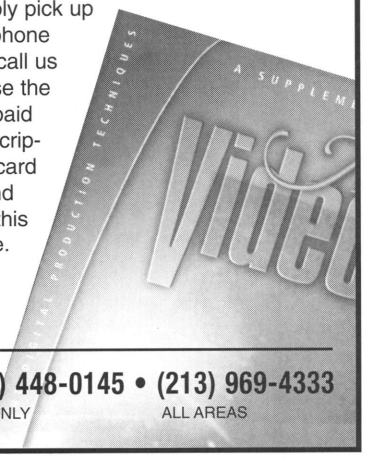

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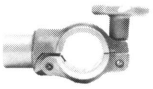

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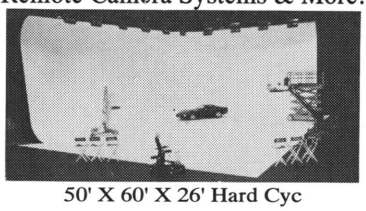

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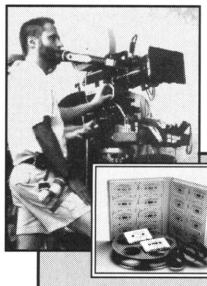

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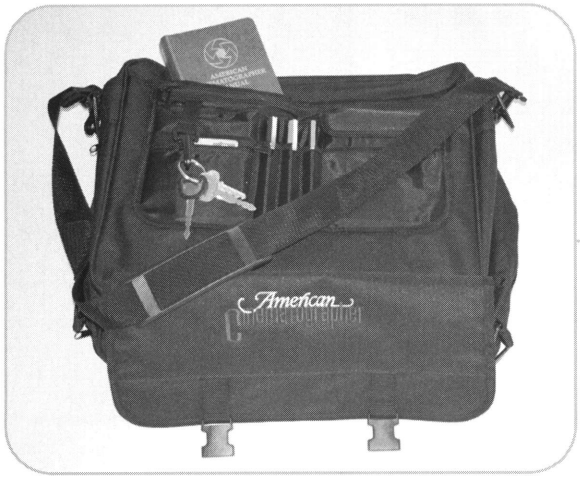

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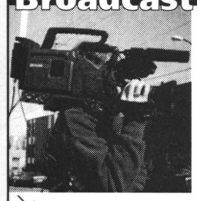

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*Technical editing of the 8th Edition ASC Film Manual is being overseen by Rob Hummel, head of animation technology for DreamWorks, SKG. He is an associate member of the American Society of Cinematographers, and has served as an executive VP of the Technology Council of the Motion Picture and Television Industry, and is an active member of SMPTE.

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From the Clubhouse

Sissel Wins Crystal

ASC member Sandi Sissel received the Kodak Vision Award for cinematography at the June 19 Women in Film Crystal Awards luncheon, held at the Century Plaza Hotel in Los Angeles. The award is given out each year to a female cinematographer with exceptional achievements in the art of feature and/or documentary filmmaking. "Sandi Sissel has compiled an extraordinary body of work which speaks for itself," says WIF President Iris Grossman. "She is also a great role model and source of inspiration for other women who aspire to become cinematographers in the entertainment film industry."

A native of Paris, Texas, Sissel began her career in New York City as an Emmy-winning TV news photographer. She segued from news to magazine shows and subsequently filmed more than 50 segments for *60 Minutes* and *20/20*. That experience led Sissel into the long-form documentary arena, where she amassed such credits as *The Wobblies* and *Before Stonewall,* along with Emmy-winning films about Mother Theresa and Jane Goodall. She also shot four memorable and Oscar-winning documentaries: *Witness to War, Broken Treaty at Battle Mountain, Seeing Red,* and *Americas in Transition.*

Sissel filled her spare time between documentary stints by working as a camera operator for such top cinematographers as Robby Müller, BVK, NSC; BSC members Chris Menges and Adrian Biddle; and ASC members Fred Elmes, Jan DeBont, Marion Tosi and Haskell Wexler.

Her first narrative film was the Academy Award-nominated *Salaam Bombay*, which she shot on location in India in 1988. Director Mira Nair recruited Sissel after viewing *Chicken Ranch*, a theatrical documentary about life in a Nevada brothel, which Sissel directed and photographed in a cinema verité style. "I just put a camera on my shoulder and invited people to tell their stories," Sissel recalls. "I didn't have a dolly, so I used my legs."

Salaam Bombay was filmed in a similar verité manner. Sissel was back in Los Angeles shooting episodes of the award-winning series *The Wonder Years* when *Salaam Bombay* won the Camera D'or Award at the Cannes Film Festival. She subsequently compiled an eclectic body of work with such film credits as *No Secrets, Drop Dead Fred, The People Under the Stairs, Soul of the Game, Camp Nowhere, Full Eclipse, The Reef* and *Barney's Great Adventure.* Her narrative TV credits include the Emmy-winning mini-series, *Drug Wars*, and such telefilms as *Toothless, Radiant City, In the Company of Darkness, Drag Strip Girl* and *Baseball in Black and White.*

In 1994, Sissel was invited to join the ASC; she is one of only four women members in the organization's 79-year history. "I was honored to be selected, especially since so many members are people whose work I have admired. Historically, the truth is that very few women cinematographers have had opportunities to compile bodies of work that would make them eligible for ASC membership. I thank Kodak for this recognition. I hope it motivates directors and producers to give deserving women cinematographers more opportunities to shoot mainstream films."

New ASC Inductees

Los Angeles native **Rick F. Gunter** has worked in the motion picture industry for 24 years, serving as a cinematographer for 12. After working as an operator on *St. Elsewhere* with John McPherson and Marvin Gunter, Gunter was promoted to director of photography. During his two-year stint shooting the popular hospital drama, Gunter was able to explore a wide range of cinematic moods and style, from surrealistic dream sequences to naturalistic, hectic emergency sequences. Following *St. Elsewhere,* Gunter filmed the Afterschool Special *Two Teens and a Baby,* as well as the pilots for *Rockenwagner, Baltimore, Home Fires, New Year, Winnetka Road, Running Wilde* and *Peer 66.* He has also photographed the series *Dallas, Ferris Bueller, Home Fires* and *Beverly Hills 90210.* Gunter is currently shooting the recent reincarnation of the popular series *The Love Boat.*

Francis Kenny, a native of Indianapolis, Indiana, first became interested in cinematography while attending Hofstra University in New York. At Hofstra he made several 16mm films, first as a hobby, then as part of the school's newly created film program. After graduation, Kenny moved to New York, where he worked on various movies in a number of different capacities. His first career break came when David Hoffman, a teacher at Hofstra, asked him to join his production company, Varied Directions, Inc.; Kenny worked as gaffer, grip and assistant cameraman, and eventually operated A-camera. For the next 10 years he traveled to different parts of the globe shooting documentaries and commercials for Mobil Oil, United Technologies, IBM, Public Television and other corporations. When Varied Directions relocated to Maine, Kenny remained in New York, branching out to shoot documentaries, commercials, music videos and features. He decided to become a motion picture cameraman after operating A-camera for Ed Lachman, ASC on *Desperately Seeking Susan* in 1985. His cinematographic credits include the TV show *The Flash* and the features *Heathers, Sweet Bird of Youth, Cold Heaven, New Jack City, Coneheads, Jason's Lyric, Harriet the Spy, Bean* and *A Night at the Roxbury.* He presently lives in Venice, California with his wife, Helene. ■

WRAP SHOT

While it lacks the shocking blood-and-guts authenticity of *Saving Private Ryan,* 1962's epic D-Day invasion chronicle *The Longest Day* boasts the kind of visual spectacle and star power that is virtually impossible to reproduce today. Based on the authoritative tome of the same name by Cornelius Ryan, the mammoth $10 million film details the buildup of American, British, Canadian and French troops in England, explores the mindset of the German defenders in Normandy, and then covers key aspects of the "Operation Overlord" invasion from both sides — revealing how Nazi overconfidence helped augment the strategic genius and raw courage demonstrated by Supreme Allied Commander General Dwight D. Eisenhower and the thousands of men and women serving under him.

The driving force behind the blockbuster project was legendary producer Daryl F. Zanuck, who brought in three directors (Andrew Marton, Ken Annakin and Bernhard Wicki) and four crack French cinematographers (Henri Persin, Walter Wottitz, Pierre Levent and Jean Bourgoin) to tackle various segments of the production. (Although uncredited, Zanuck himself helmed some scenes shot in the U.S.) This team effort surely helped to lend each of the picture's primary venues (including gritty beachheads, opulent German headquarters, and war-torn French villages) their own distinct photographic style.

Filmed at 31 separate locations, much of the film's action was staged on actual D-Day battlefields, including the beaches of Normandy and the seaside town of Ste. Mère Eglise. (It's reported that the production was so authentic that emotionally scarred locals threw stones at the unfortunate actors dressed in German uniforms.) More filming was done in Corsica, while stage work was completed at the Studio Boulogne in Paris.

An army of extras was led into battle by a stellar array of Hollywood heroes, including John Wayne, Henry Fonda, Robert Mitchum, Richard Burton, Robert Ryan and Eddie Albert. Interestingly, some of the supporting players were real-life veterans of the Normandy invasion, including Lt. Richard Todd (who participated in the British 6th Airborne's glider assault on the Orne River Bridge) and Pvt. Joseph Lowe (who landed on Omaha Beach with the 5th Ranger Battalion and heroically scaled the treacherous hundred-foot cliffs at Pointe du Hoc).

Here, American troops are pinned down on Omaha Beach by incessant enemy fire. In one of the film's most remarkable shots — seen from the aerial perspective of a German fighter strafing the shoreline — the masterful staging of this event is clearly displayed as thousands of soldiers, ships and vehicles struggle to cross the blood-soaked stretch of sand.

Shot in CinemaScope, *The Longest Day* earned both Academy and Golden Globe Awards for Best Black-and-White Cinematography, as well as an Oscar for Best Special Effects.

— David E. Williams

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